SANYO

FILE NO.

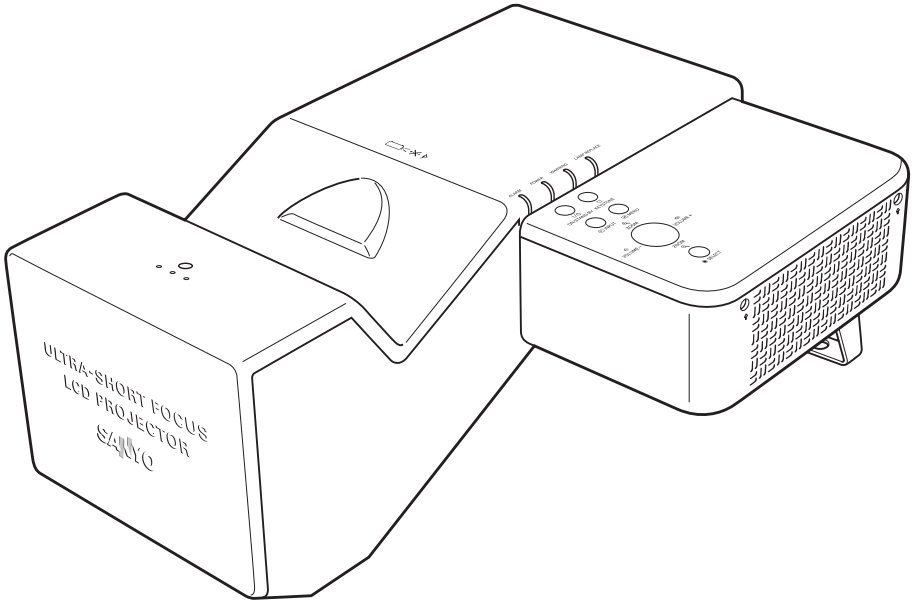
SERVICE MANUAL

Multimedia Projector

Model No. PLC-XL50

U.S.A, Canada,
Europe, U.K,

Original Version



Chassis No. KM3-XL5000

Match the Chassis No. on the unit's back cover with the Chassis No. in the Service Manual.
If the Original Version Service Manual Chassis No. does not match the unit's, additional Service Literature is required. You must refer to "Notices" to the Original Service Manual prior to servicing the unit.

PRODUCT CODE
1 122 398 00 (KM3A)
1 122 399 00 (LM3A)
1 122 399 02 (LM3C)

REFERENCE NO. SM5110903-00

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Safety Instructions

Safety Precautions

WARNING:
The chassis of this projector is isolated (COLD) from AC line by using the converter transformer. Primary side of the converter and lamp power supply unit circuit is connected to the AC line and it is hot, which hot circuit is identified with the line (⎓) in the schematic diagram. For continued product safety and protection of personnel injury, servicing should be made with qualified personnel.

The following precautions must be observed.

1: An isolation transformer should be connected in the power line between the projector and the AC line before any service is performed on the projector.

2: Comply with all caution and safety-related notes provided on the cabinet back, cabinet bottom, inside the cabinet or on the chassis.

3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, etc.

DO NOT OPERATE THIS PROJECTOR WITHOUT THE PRO TECTIVE SHIELD IN POSITION AND PROPERLY SECURED.

4: Before replacing the cabinet cover, thoroughly inspect the inside of the cabinet to see that no stray parts or tools have been left inside.

Before returning any projector to the customer, the service personnel must be sure it is completely safe to operate without danger of electric shock.

Product Safety Notice

Product safety should be considered when a component replacement is made in any area of the projector. Components indicated by mark ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. It is, therefore, particularly recommended that the replacement of there parts must be made by exactly the same parts.

Service Personnel Warning

Eye damage may result from directly viewing the light produced by the Lamp used in this equipment. Always turn off Lamp before opening cover. The Ultraviolet radiation eye protection required during this servicing.
Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages (15kV - 25kV) at its starts.
Since the lamp is very high temperature during units operation replacement of the lamp should be done at least 45 minutes after the power has been turned off, to allow the lamp cool-off.

Battery Replacement Notice

Caution

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacture's instructions.

Replace Battery With SANYO Electric Co., Ltd., Part No. 645 089 8587 Only. Use of Another Battery May Present A Risk Of Fire or Explosion.

Technical Specifications

Mechanical Information

Projector Type	Multi-media Projector
Dimensions (W x H x D)	14.72" x 7.75" x 19.49" (374 mm x 196.8 mm x 495 mm) (Not including Rear leg)
Net Weight	16.74 lbs (7.6 kg)
Feet Adjustment	0˚ to 1.0˚

Panel Resolution

LCD Panel System	0.8" P-Si TFT Active Matrix type
Panel Resolution	1,024 x 768 dots
Number of Pixels	2,359,296 (1,024 x 768 x 3 panels)

Signal Compatibility

Color System	PAL, SECAM, NTSC, NTSC4.43, PAL-M, and PAL-N
High Definition TV Signal	480i, 480p, 575i, 575p, 720p, 1035i, and 1080i
Scanning Frequency	H-sync. 15 kHz–100 kHz, V-sync. 50–100 Hz

Optical Information

Projection Image Size (Diagonal)	Adjustable from 60" to 80"
Projection Lens	F 1.85 lens with f 4.83 mm with manual focus
Distance (Screen - Projector)	-0.131' – 0.265' (-4.0 cm – 8.1 cm)
Projection Lamp	275 W

Interface

Video Input Jack	RCA Type x 1
S-Video Input Jack	Mini DIN 4 pin x 1
Audio Input Jacks	RCA Type x 2
Component Input Jacks	RCA Type x 3
Computer Input 1 Input Terminal	Analog RGB (Mini D-sub 15 pin) Terminal x 1
Computer Input 2 / Monitor Output Terminal	Analog RGB (Mini D-sub 15 pin) Terminal x 1 (In/Out switchable)
Audio Input Computer Jack	Mini Jack (stereo) x 1
Service Port Connector	Mini DIN 8 pin x 1
Audio Output Jack	Mini Jack (stereo) x 1 (Variable)

Audio

Internal Audio Amp	2.0 W RMS
Built-in Speaker	1 speaker, ø2.0" (50 mm)

Power

Voltage and Power Consumption	AC 100–120 V (3.2 A Max. Ampere), 50/60 Hz (The U.S.A and Canada) AC 200–240 V (1.6 A Max. Ampere), 50/60 Hz (Continental Europe and The U.K.)

Operating Environment

Operating Temperature	41˚F–95˚F (5˚C–35˚C)
Storage Temperature	14˚F–140˚F (-10˚C–60˚C)

Remote Control

Battery	AA or LR6 1.5V ALKALINE TYPE x 2
Operating Range	11.5' (3.5 m) / ±90˚
Dimensions	1.9" (W) x 0.87" (H) x 5.7" (D) (49 mm x 22 mm x 145.3 mm)
Net Weight	3.53 oz (100 g) (including batteries)

- The specifications are subject to change without notice.
- LCD panels are manufactured to the highest possible standards. Even though 99.99% of the pixels are effective, a tiny fraction of the pixels (0.01% or less) may be ineffective by the characteristics of the LCD panels.

c UL US LISTED

This symbol on the nameplate means the product is Listed by Underwriters Laboratories Inc. It is designed and manufactured to meet rigid U.L. safety standards against risk of fire, casualty and electrical hazards.

■ Curcuit Protections

This projector provides the following circuit protections to operate in safety. If the abnormality occurs inside the projector, it will automatically turn off by operating one of the following protection circuits.

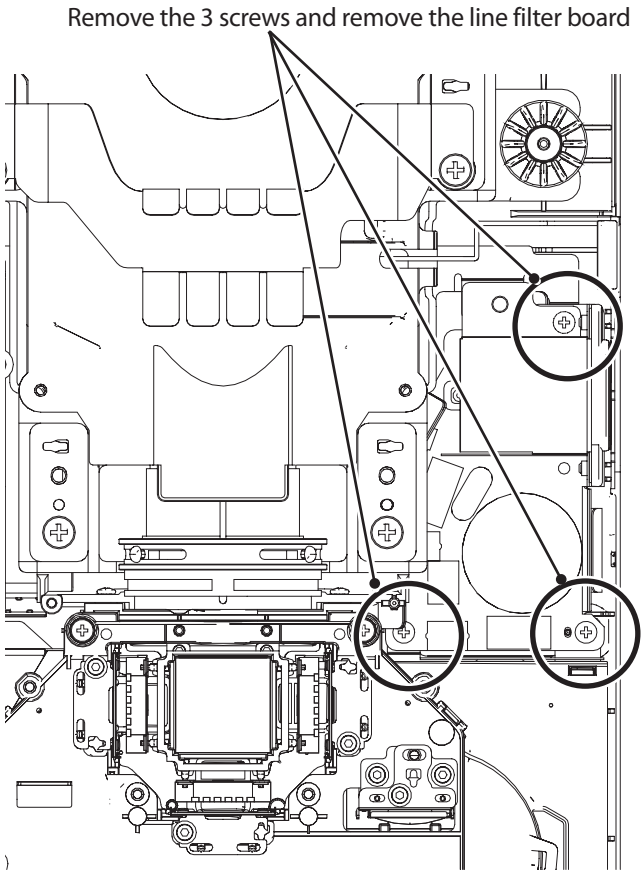
Fuse

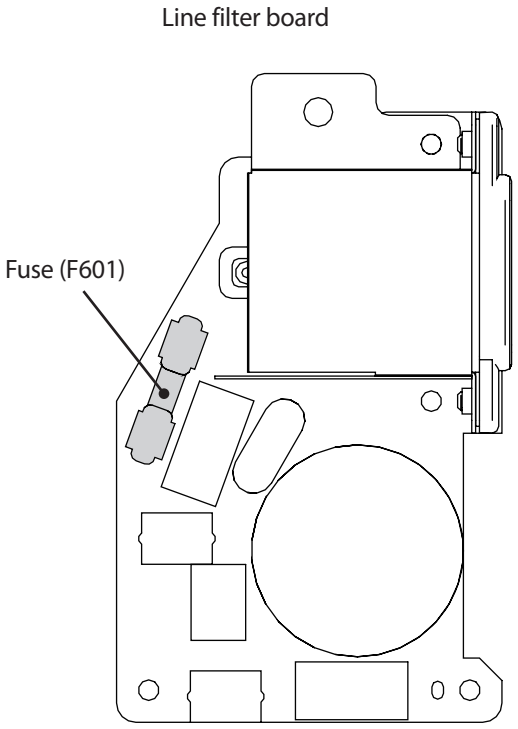
A fuse is located inside of the projector. When the POWER indicator is not lightning, the fuse may be opened. Check the fuse as following steps.
The fuse should be used with the following type;

Fuse Part No.: 323 025 1204
TYPE 8A 250V FUSE
LITTLE FUSE INC. TYPE 215008

How to replace the fuse

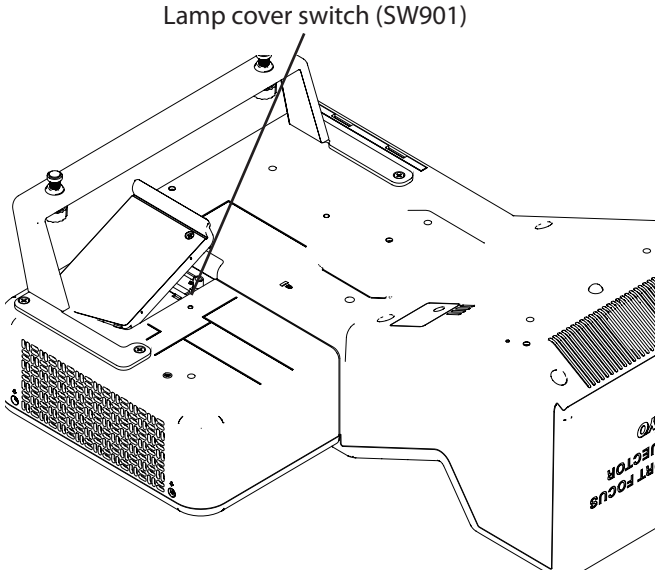
1. The fuse is placed on the line filter board under the main board. Remove the cabinet top and main board. (Refer to Fig.)
2. Take the fuse off, and replace the new one with the specified type.





Lamp cover switch

The lamp cover switch (SW901) cuts off the drive signal to the lamp circuit when the lamp cover is removed or not closed completely. After opening the lamp cover for replacing the lamp ass'y, place the lamp cover correctly otherwise the projector can not turn on.



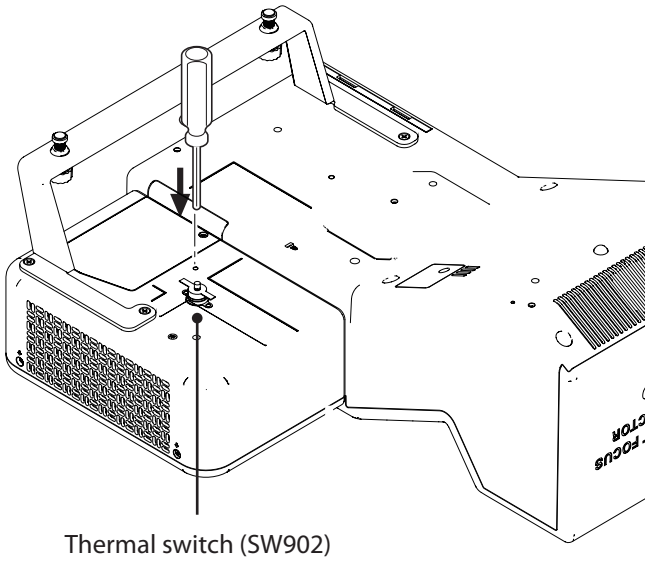
Thermal switch

There is the thermal switch (SW902) inside of the projector to detect the internal temperature rising abnormally. When the internal temperature reaches near 100˚C, the thermal switch opens to stop the operation of the power supply circuit.
The thermal switch cannot be reset itself automatically even if the internal temperature becomes normal. Reset the thermal switch following to the below procedure.

How to reset the thermal switch

1. Insert the sharp tool like a screwdriver into a hole on the cabinet from the cabinet bottom.
2. Press the reset button on the thermal switch with the screwdriver.

CAUTION:
Before press the reset button, make sure that the AC cord must be disconnected from the AC outlet.



Warning temperature and power failure protection

The projector will be automatically turned off when the internal temperature of the projector is abnormally high, or the cooling fans stop spinning, or the power supplies in the projector are failed.

- If the WARNING indicator is flashing, it may detect the abnormal temperature inside the projector. Check the following possible causes and wait until the WARNING indicator stops flashing, and then try to turn on the projector.
- If the WARNING indicator lights red, it may defect the cooling fans or power supply circuits. Check fans operation and power supply lines referring to the chapter "Power supply & protection circuit" in the Chassis Block Diagram section.

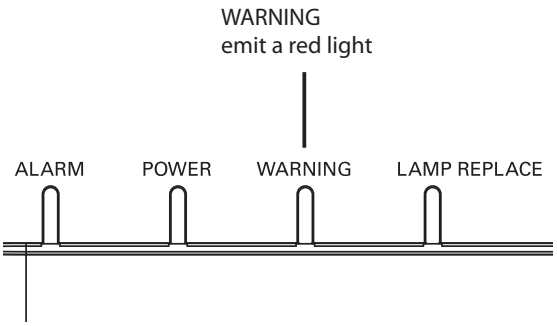
Possible causes

- Air filters are clogged with dust particles. Remove dust from the air filters by following instructions in the "Air filter care and cleaning" below.
- Ventilation slots of the projector are blocked. In such an event, reposition the projector so that ventilation slots are not obstructed.
- Check if projector is used at higher temperature place (Normal operating temperature is 5 to 35 ˚C or 41 to 95˚F)

The projector is shut down and the WARNING indicator lights red.

When the projector detects an abnormal condition, it is automatically shut down to protect the inside of the projector and the WARNING indicator lights red. In this case, unplug the AC power cord and reconnect it, and then turn the projector on once again to verify operation. If the projector cannot be turned on and the WARNING indicator still lights red, it may defect the cooling fans or power supply circuits.

Indicators



CAUTION

DO NOT LEAVE THE PROJECTOR WITH THE AC POWER CORD CONNECTED UNDER AN ABNORMAL CONDITION. IT MAY RESULT IN FIRE OR ELECTRIC SHOCK.

■ Maintenance and Cleaning

Cleaning the Air Filter

The air filter prevents dust from accumulating on the surface of the optical elements inside the projector. Should the air filter become clogged with dust particles, it will reduce cooling fans' effectiveness and may result in a buildup of internal heat and adversely affects the life of the projector. Clean the air filter by following the steps below.

1 Turn off the projector, and unplug the AC power cord from the AC outlet.

2 Turn over the projector and remove the air filter by pulling the latches upward.

3 Clean up the dust on the projector and around the air vents.

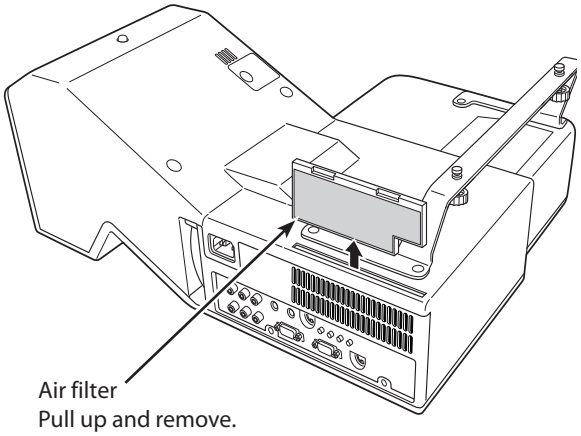
4 Gently clean the filter by using a brush or blower.

WARNING: Do not wash the filter with water and any other liquid matter. Otherwise the filter may be damaged.

5 Reinstall the filter into the projector properly.

6 Reset the filter counter in the Setting Menu. See "Resetting the Filter Counter" below.

CAUTION
Do not operate the projector with the air filter removed. Dust may accumulate on the optical elements degrading picture quality. Do not put anything into the air intake vents. Otherwise it may result in malfunction of the projector.



✔Note:

- When cleaning the air filter, protect the infrared remote receiver with a soft cloth to avoid damaging it.
- If the filter is heavily clogged and unable to clean, replace it with a new one. Consult your dealer for details.

Replacement Filter Part No.: 610 335 4057

RECOMMENDATION

We recommend avoiding dusty/smoky environments when you operate the projector. Usage in these environments may cause poor image quality.

When you use the projector under dusty or smoky conditions, dust may accumulate on the lens, LCD panels, or optical elements inside the projector degrading the quality of a projected image.
When the symptoms above are noticed, contact your authorized dealer or service station for proper cleaning.

Resetting the Filter Counter

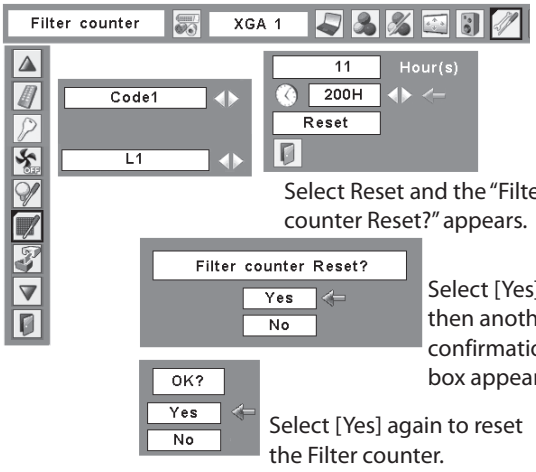
Be sure to reset the Filter counter after cleaning or replacing the filter.

1 Press the MENU button to display the On-Screen Menu. Use the Point ◀▶ buttons to move the red frame pointer to the Setting Menu icon.

2 Use the Point ▲▼ buttons to move the red frame pointer to Filter counter and then press the SELECT button. A dialog box appears showing the total accumulated time of the filter use, a timer setting option, and the reset option. Select Reset and the "Filter counter Reset?" appears. Select [Yes] to continue.

3 Another confirmation dialog box appears, select [Yes] to reset the Filter counter.

Filter counter



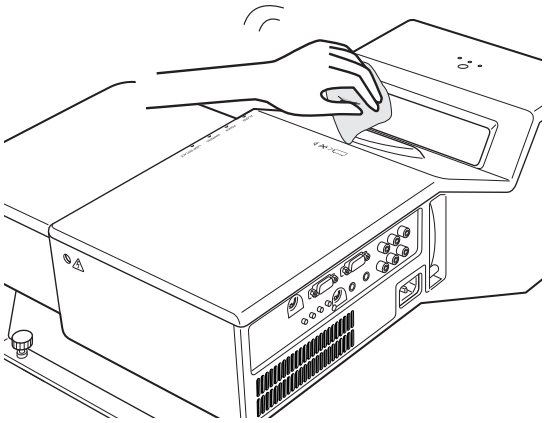
Cleaning the Projection Window

CAUTION

This projector is equipped with a projection window.
Do not rub the projection window with a hard fiber cloth or hit it with a something hard to prevent the projection window from scratching. Do not use a chemical cleaner (liquid and solid) to avoid deteriorating the projection window.

Unplug the AC power cord before cleaning.

First, remove the dust with a blower. Then gently wipe the projection window surface. Use a cleaning paper moistened with methyl alcohol (methanol). Avoid excessive use of cleaner. Do not use abrasive cleaners, solvents, or other harsh chemical cleaners to avoid damaging the projection window.



Cleaning the Projector Cabinet

Unplug the AC power cord before cleaning.

Gently wipe the projector body with a soft dry cleaning cloth. When it is heavily soiled, use a small amount of mild detergent and finish with the cleaning cloth. Avoid excessive use of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface of the cabinet.

When the projector is not in use, put the projector in an appropriate case to avoid dust and being scratched.

Cleaning

After long periods of use, dust and other particles will accumulate on the LCD panel, prism, mirror, polarized glass, lens, etc., causing the picture to darken or color to blur. If this occurs, clean the inside of optical unit.

Remove dust and other particles using air spray. If dirt cannot be removed by air spray, disassemble and clean the optical unit.

Cleaning with air spray

1. Remove the cabinet top following to "Mechanical Disassemblies".
2. Clean up the LCD panel and polarizing plate by using the air spray from the cabinet top opening.

Caution:
Use a commercial (inert gas) air spray designed for cleaning camera and computer equipment. Use a resin-based nozzle only. Be vary careful not to damage optical parts with the nozzle tip. Never use any kind of cleanser on the unit. Also, never use abrasive materials on the unit as this may cause irreparable damage.

Disassembly Cleaning

Disassembly cleaning method should only be performed when the unit is considerable dirty and cannot be sufficiently cleaned by air spraying alone.
Be sure to readjust the optical system after performing disassembly cleaning.

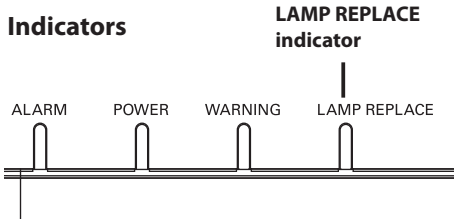
1. Remove the cabinet top and main units following to "Mechanical Disassemblies".
2. Remove the optical base top following to "Optical Unit Disassemblies". If the LCD panel needs cleaning, remove the LCD panel unit following to "LCD panel replacement".
3. Clean the optical parts with a soft cloth. Clean extremely dirty areas using a cloth moistened with alcohol.

Caution:
The surface of the optical components consists of multiple dielectric layers with varying degrees of refraction. Never use organic solvents (thinner, etc.) or any kind of cleanser on these components.
Since the LCD panel is equipped with an electronic circuit, never use any liquids (water, etc.) to clean the unit. Use of liquid may cause the unit to malfunction.

■ Lamp Replacement

Lamp Replacement

When the projection lamp of the projector reaches its end of life, the Lamp replacement icon appears on the screen and LAMP REPLACE indicator lights yellow. Replace the lamp with a new one promptly. The timing when the LAMP REPLACE indicator should light is depending on the lamp mode.



Lamp replacement icon

WARNING:
TURN OFF THE UV LAMP BEFORE OPENING THE LAMP COVER

✔Note:

- The Lamp replacement icon will not appear when the Display function is set to "Off", during "Freeze", or "No show".

CAUTION

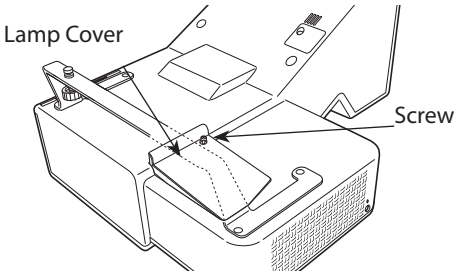
Allow a projector to cool for at least 45 minutes before you open the Lamp cover. The inside of the projector can become very hot.

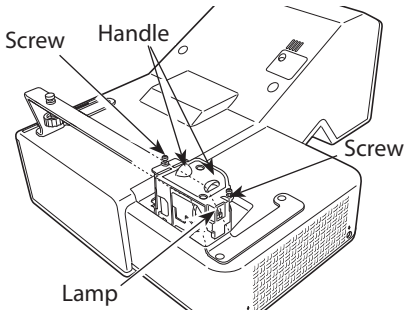
CAUTION

For continued safety, replace with a lamp of the same type. Do not drop a lamp or touch a glass bulb! The glass can shatter and may cause injury.

Follow these steps to replace the lamp.

1. Turn off the projector and unplug the AC power cord. Let the projector cool for at least 45 minutes.
2. Remove the screw from the lamp cover and open the cover.
3. Loosen the two (2) screws that secure the lamp. Lift the lamp out of the projector by using the handle.
4. Replace the lamp with a new one and secure the two (2) screws. Make sure that the lamp is set properly. Close the lamp cover and secure the screw.
5. Connect the AC power cord to the projector and turn on the projector.
6. **Reset the lamp counter.**
   See "Lamp Replacement Counter" on the next page.





✔Note:

- When replacing the projection lamp, protect the infrared remote receiver with a soft cloth to avoid damaging it.

ORDER REPLACEMENT LAMP

Replacement lamp can be ordered through your dealer. When ordering a projection lamp, give the following information to the dealer.

- **Model No. of your projector : PLC-XL50**
- **Replacement Lamp Type No.: POA-LMP121**
  (Service Parts No. 610 337 9937)

Lamp Replacement Counter

Be sure to reset the Lamp replacement counter after the lamp is replaced. When the Lamp replacement counter is reset, the LAMP REPLACE indicator stops lighting.

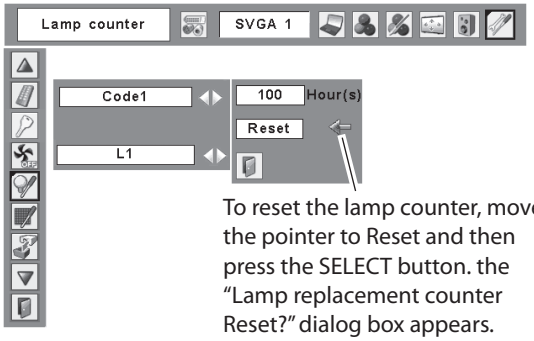
1 Turn the projector on and press the MENU button to display the On-Screen Menu. Use the Point ◀▶ buttons to move the red frame pointer to the Setting Menu icon.

2 Use the Point ▲▼ buttons to move the red frame pointer to Lamp counter and then press the SELECT button. The first dialog box appears showing the total accumulated lamp time and reset option. If you select Reset, "Lamp replacement counter Reset?" appears. Select "Yes" to continue.

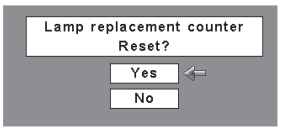
3 Another confirmation dialog box appears, and select "Yes" to reset the Lamp replacement counter.

✔Note:

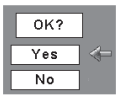
•Do not reset the Lamp replacement counter without implementing lamp replacement. Be sure to reset the Lamp replacement counter only after replacing the lamp.



To reset the lamp counter, move the pointer to Reset and then press the SELECT button. the "Lamp replacement counter Reset?" dialog box appears.



Select "Yes," then another confirmation box appears.



Select "Yes" again to reset the lamp counter.

LAMP HANDLING PRECAUTIONS

This projector uses a high-pressure lamp which must be handled carefully and properly. Improper handling may result in accidents, injury, or create a fire hazard.

●Lamp life may differ from lamp to lamp and according to the environment of use. There is no guarantee of the same life for each lamp. Some lamps may fail or terminate their life in a shorter period of time than other similar lamps.

●If the projector indicates that the lamp should be replaced, i.e., if the LAMP REPLACE indicator lights up, replace the lamp with a new one IMMEDIATELY after the projector has cooled down.
(Follow carefully the instructions in the Lamp Replacement section of this manual.) Continuous use of the lamp with the LAMP REPLACE indicator lighted may increase the risk of lamp explosion.

●A Lamp may explode as a result of vibration, shock, or degradation as a result of hours of use, as it comes to the end of life. Risk of explosion may differ according to the environment or conditions in which the projector and lamp are being used.

IF A LAMP EXPLODES, THE FOLLOWING SAFETY PRECAUTIONS SHOULD BE TAKEN.

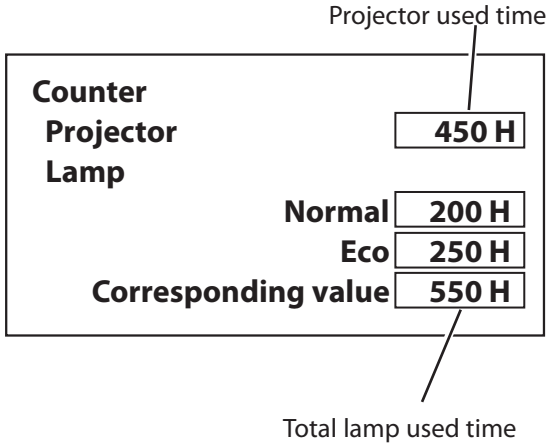
If a lamp explodes, disconnect the projector's AC plug from the AC outlet immediately. Contact an authorized service station for a checkup of the unit and replacement of the lamp. Additionally, check carefully to ensure that there are no broken shards or pieces of glass around the projector or coming out from the cooling air circulation holes. Any broken shards found should be cleaned up carefully. No one should check the inside of the projector except those who are authorized trained technicians and who are familiar with projector service. Inappropriate attempts to service the unit by anyone, especially those who are not appropriately trained to do so, may result in an accident or injury caused by pieces of broken glass.

How to check Lamp Used Time

The LAMP REPLACE indicator will light yellow when the total lamp used time (Corresponding value) reaches 3,000 hours.
This is to indicate that lamp replacement is required.
The total lamp used time is calculated by using the below expression,
Total lamp used time (Corresponding value) = **T**eco + (**T**normal x 1.5)

Teco : used time in the Normal mode
Tnormal : used time in the High mode

You can check the lamp used time following to the below procedure.
1 Press and hold the **ON/STAND-BY** button on the projector for more than 20 seconds.
2 The projector used time and lamp used time will be displayed on the screen briefly as follows.



■ Security Function Notice

Security Function Disable

This projector provides security functions such as "Key lock", "PIN code lock" and "Logo PIN code lock". When the projector has set these security function on, you are required to enter correct PIN code to use the projector. If you do not know the correct PIN code to the projector, the projector can no longer be operated or started. In this case, you must reset those function first according to the resetting procedure described below and then check up on the projector.

Function	Description
Key lock	Locks operation of the top control or the remote control. If the Key lock is enabled with top control lock, the projector can no longer be started. Initial setting: Key lock function is disabled
PIN code lock	Prevents the projector from being operated by an unauthorized person. Initial code: "1234"
Logo PIN code lock	Prevents an unauthorized person for changing the start-up logo and captured image on the screen. Initial code: "4321"

Resetting procedure

1 Disconnect the AC power cord from the AC outlet.

2 As pressing the **SELECT** button on the projector, connect the AC power cord into an AC outlet again. Keep pressing the **SELECT** button until the POWER indicator lights continuously.

This is complete the resetting of the security function. The PIN code lock and Logo PIN code lock are reset as the initial PIN code at the factory and the Key lock function is disabled.

Please refer to the owner's manual for further information of the security functions.

Antitheft Alarm Function Disable

This projector provides an Antitheft alarm function which works when detecting a vibration to protect the projector from a suspicious person.

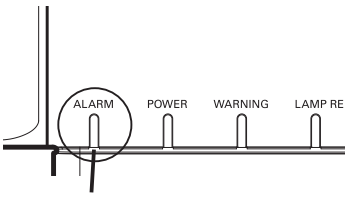
Release the alarm setting

Press the **F button** and enter the four-digit PIN code number within about 10 seconds. (The default PIN code is set to "1111.") When the alarm is released, you will hear a high-pitched confirmation sound.

When you enter an incorrect PIN code, you will hear a low-pitched sound. If you enter an incorrect PIN code three times in a row, the alarm will start ringing.

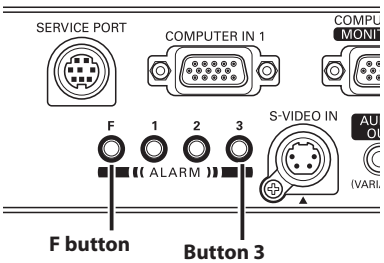
If you forget the PIN code to release the alarm setting, press and hold the **button 3** and **F button** at the same time for more than 3 seconds.

Indicator



ALARM indicator

Terminal



■ Mechanical disassemblies

Disassemble should be made following procedures in numerical order.
Following steps show the basic procedures, therefore unnecessary step may be ignored.

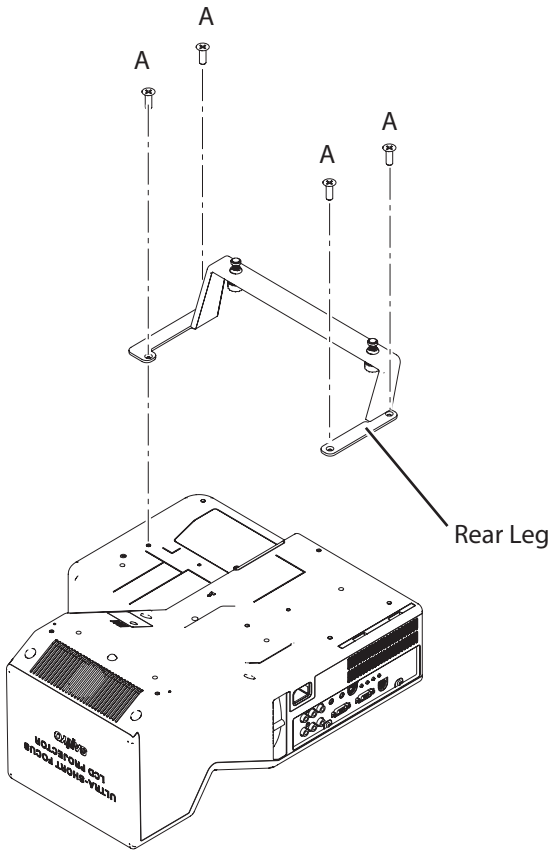
Caution:

The parts and screws should be placed exactly the same position as the original otherwise it may cause lose of performance and product safety.
The wiring method of the leads and ferrite cores should be returned exactly the same state as the original, otherwise it may cause lose of performance and product safety.

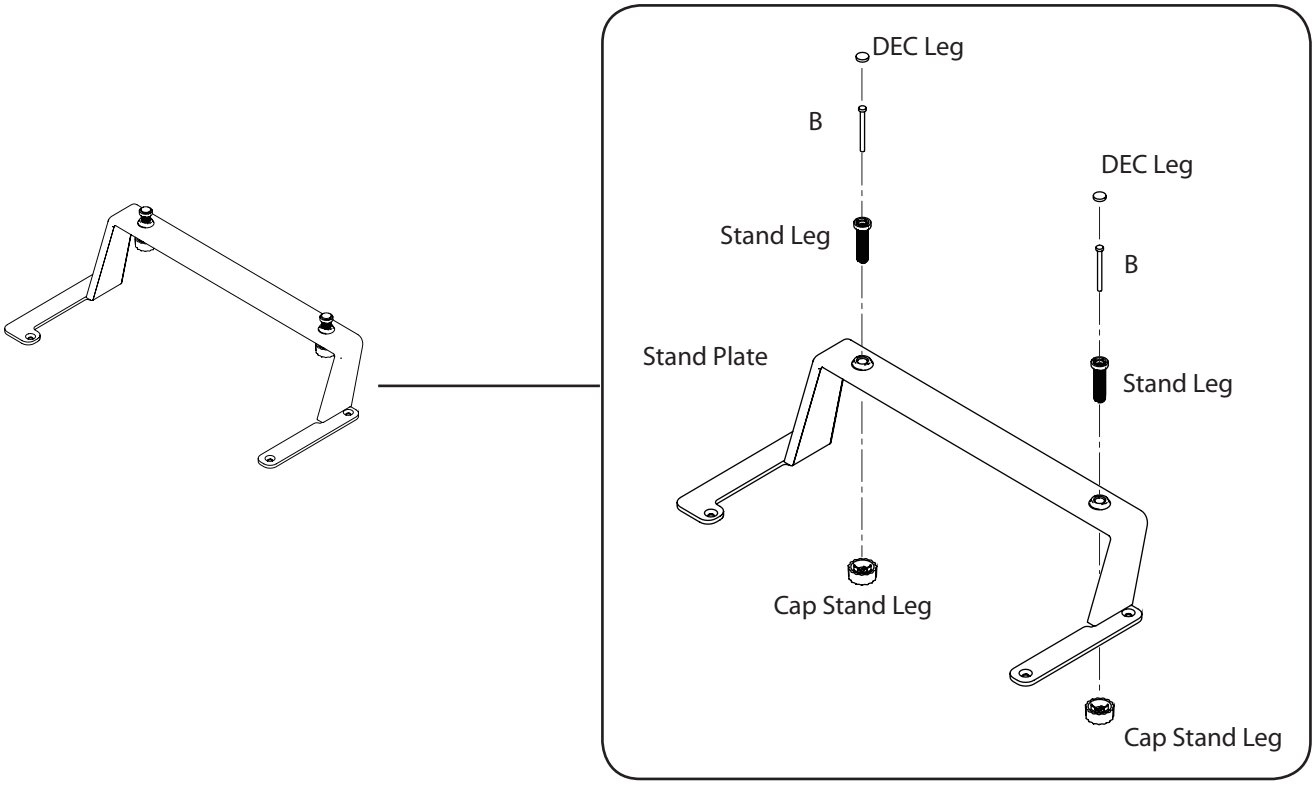
Screws Expression (Type Diameter x Length) mm	
T type	M Type
Tapping screw	Machine screw

1 Rear Leg removal.

1. Remove the 4 screws-A(M4x12) and remove the Rear Leg.

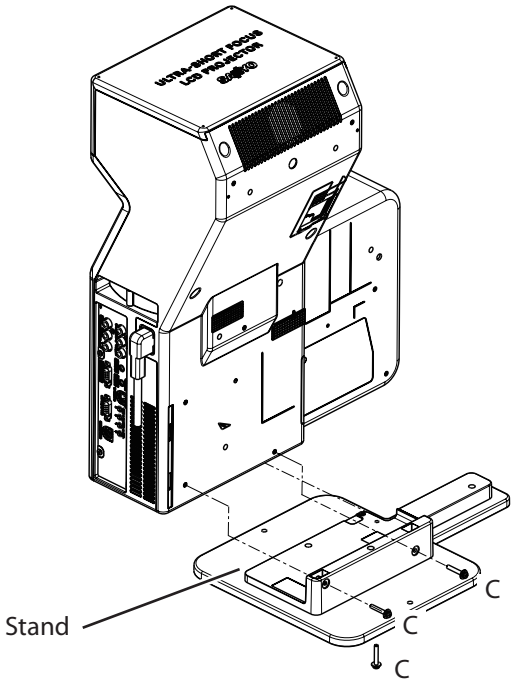


2. Remove the 2 DEC Legs.
3. Remove the 2 screws-B (M3x35).
4. Remove the 2 Stand Legs and Cap Stand Legs.



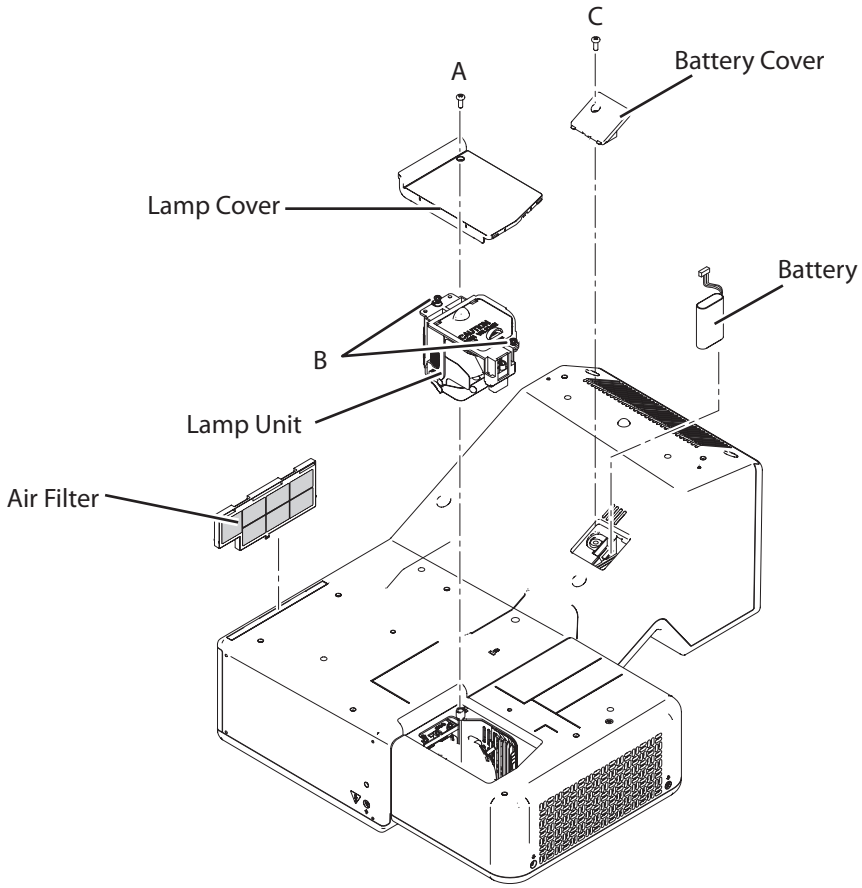
Stand (accessory) Removal.

5. Remove the 3 screws-C (M4x25) and remove the Stand.



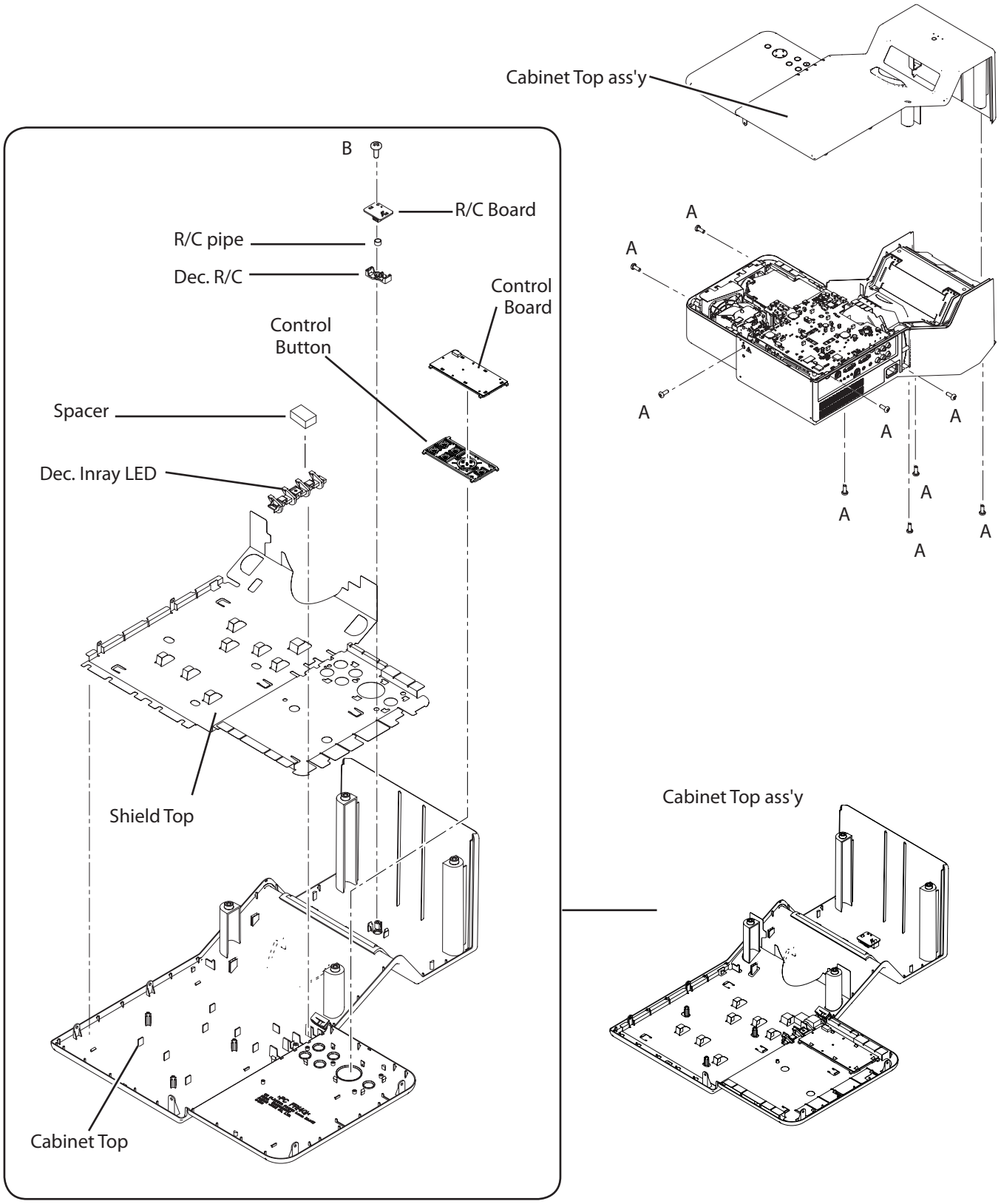
2 Lamp Unit and Alarm Battery removal.

1. Remove the screw-A(M3x8) and remove the Lamp cover.
2. Loosen the 2 screws-B and remove the Lamp uint.
3. Remove the screw-C (M3x8) and remove the Battery cover.
4. Remove the Battery.
5. Remove the Air Filter upward.



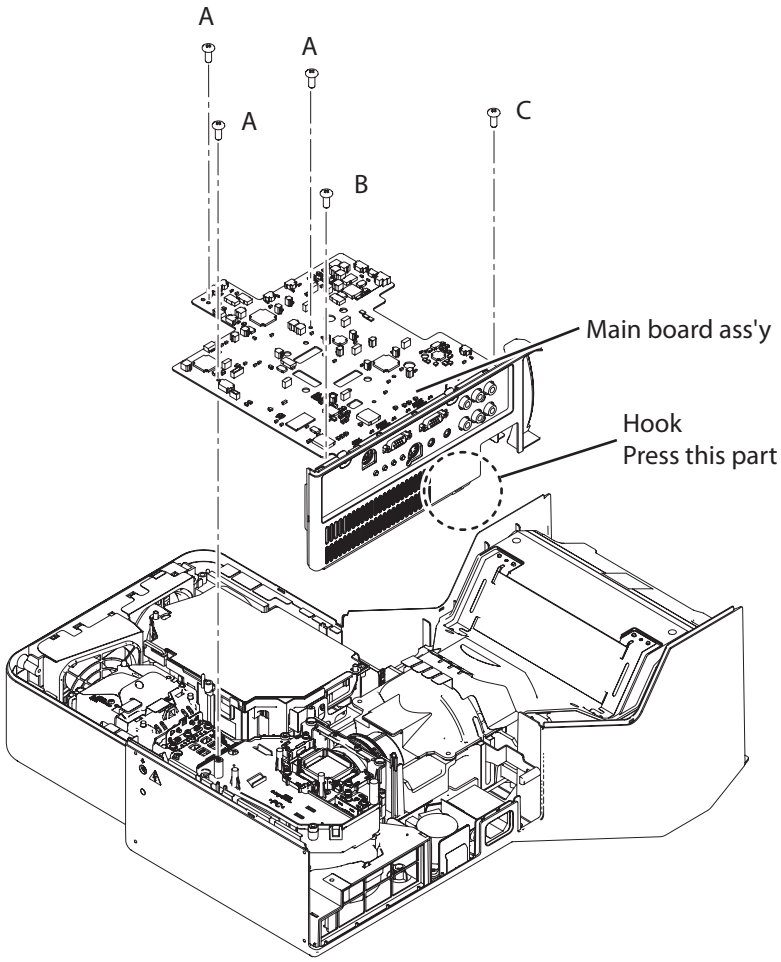
3 Cabinet top ass'y removal.

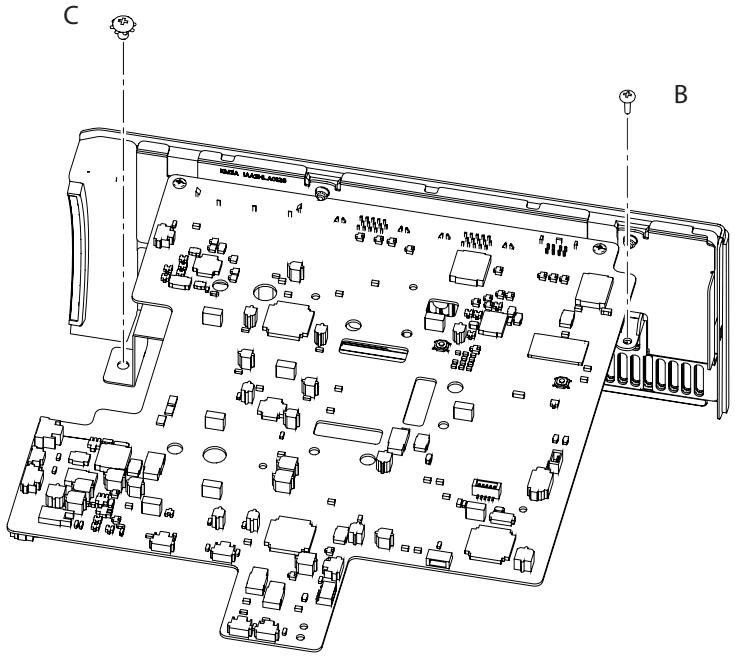
1. Remove the 9 screws-A(M3x8) and remove the Cabinet top ass'y.
2. Remove the screw-B(T3x8), remove the R/C board, R/C pipe and remove the Decoration R/C.
3. Remove the Control board and Control Button.
4. Remove the Spacer, Decoration Inray LED and Shield top.

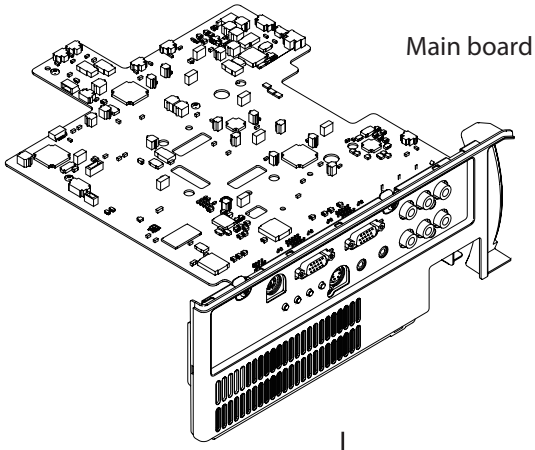


4 Main Board ass'y removal.

1. Remove the 3 screws-A(M2.5x6), screw-B(T3x8), screw-C(M4x6) and remove the Main board ass'y.

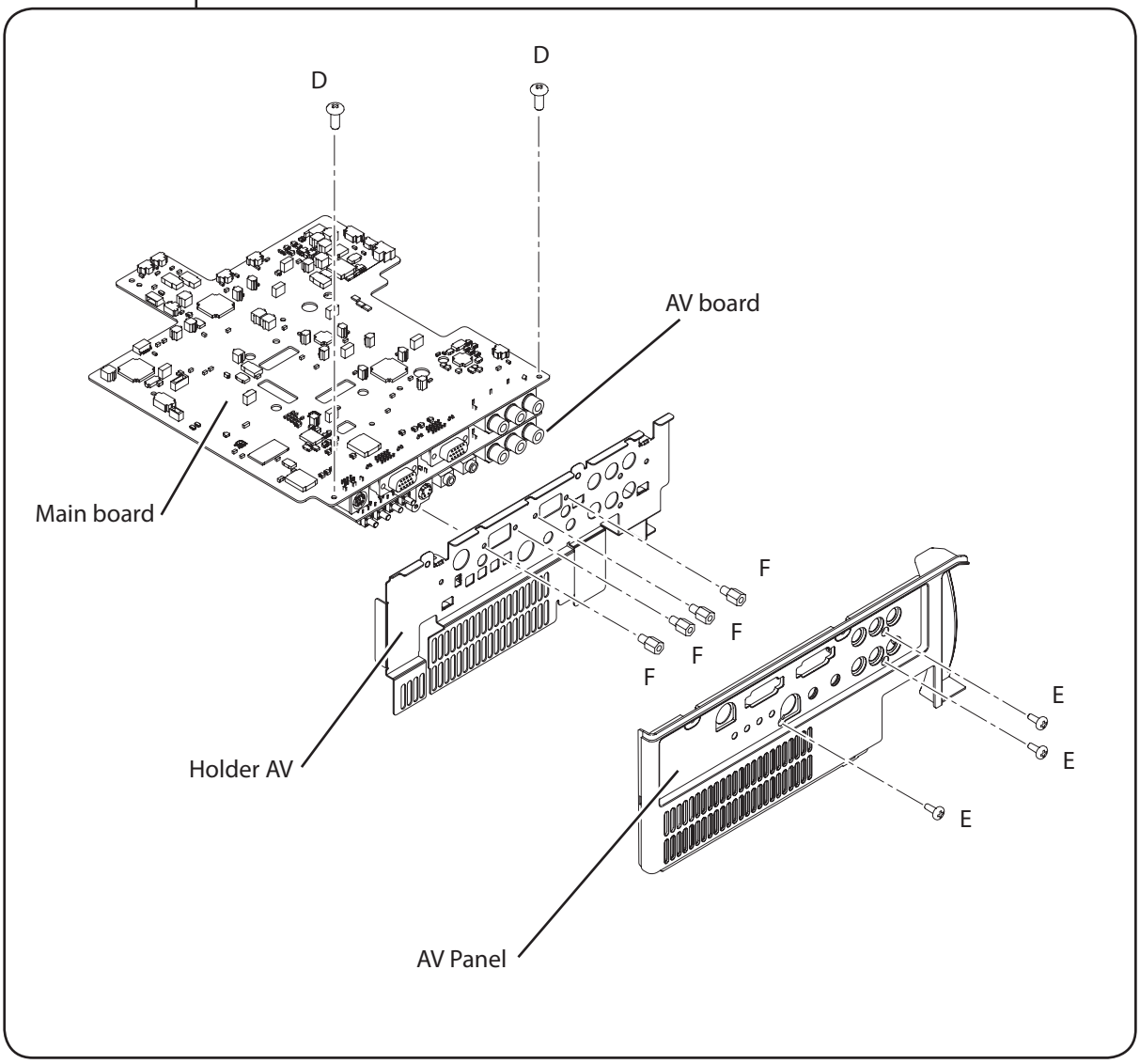






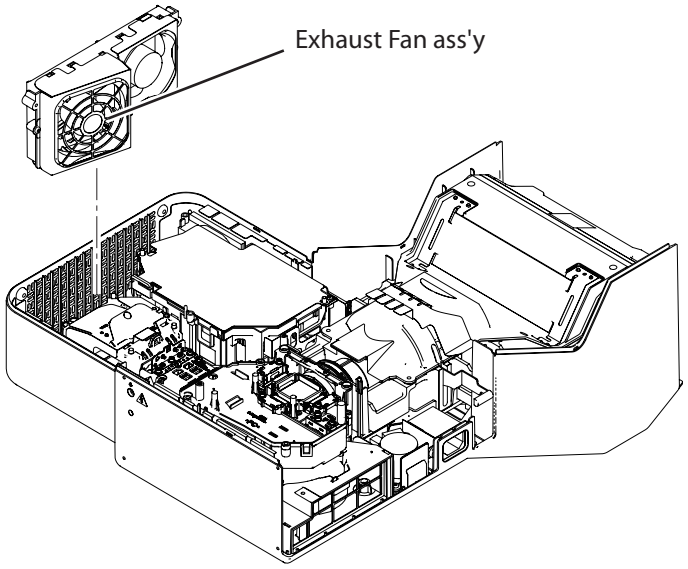
Main board ass'y

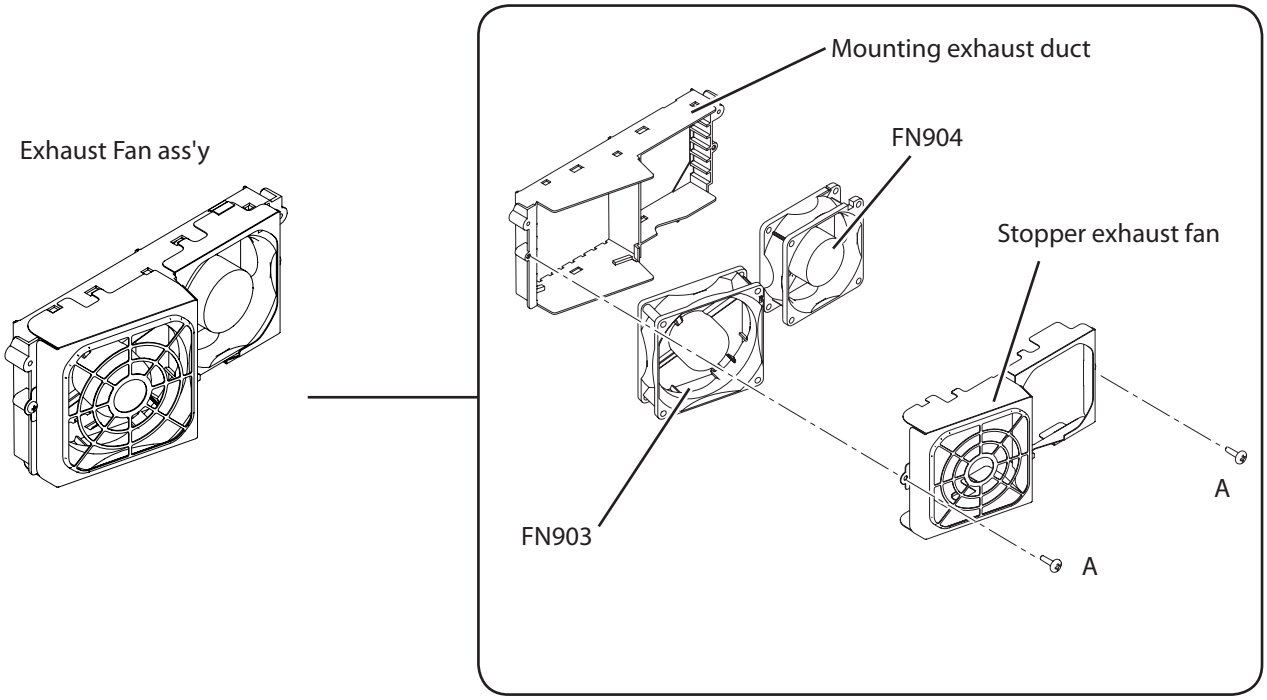
2. Remove the 2 screws-D(M2.5x6).
3. Remove the 3 screws-E(T3x6) and AV panel.
4. Remove the 4 nuts-F and Holder AV.



5 Exhaust Fan ass'y removal.

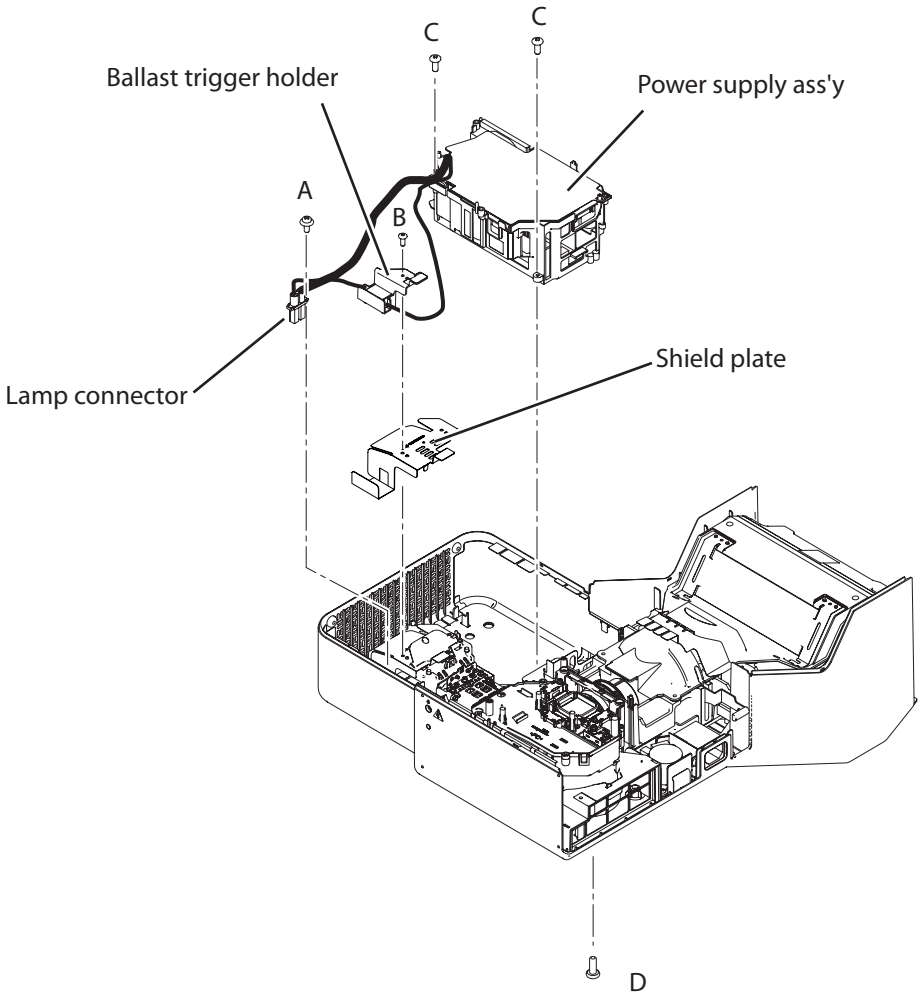
1. Remove the exhaust Fan ass'y(FN903, FN904) upward.
2. Remove the 2 screws-A(T3x8), remove the stopper exhaust Fan and remove the FN903, FN904.



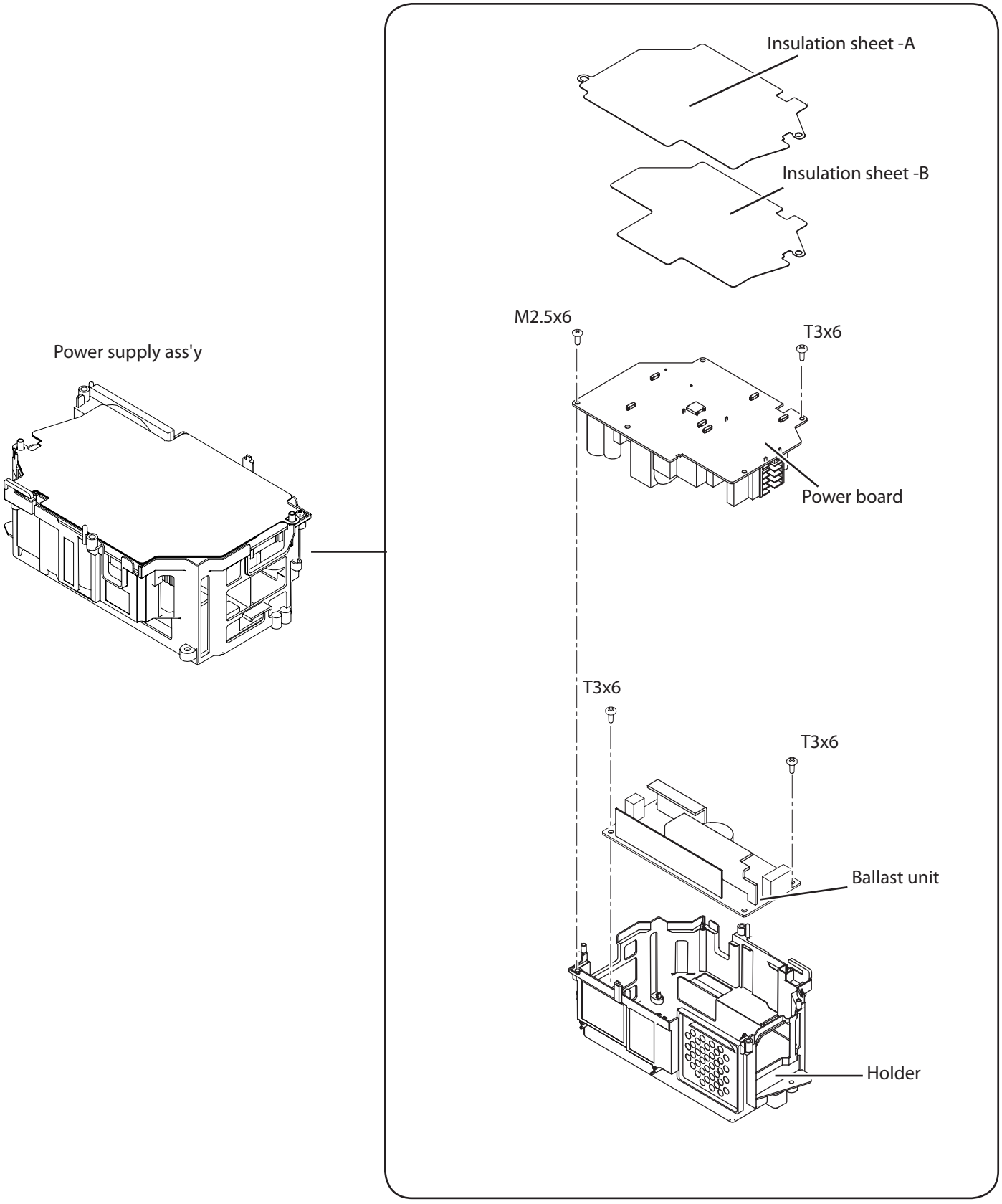


6 Power supply ass'y removal.

1. Remove the screw-A(M3x8) and remove the Lamp connector.
2. Remove the screw-B(M2.5x6) ,remove the Ballast trigger holder and shield plate.
3. Remove the 2 screws-C(T3x8), remove the screw-D(T3x8) and remove the Power Supply ass'y.

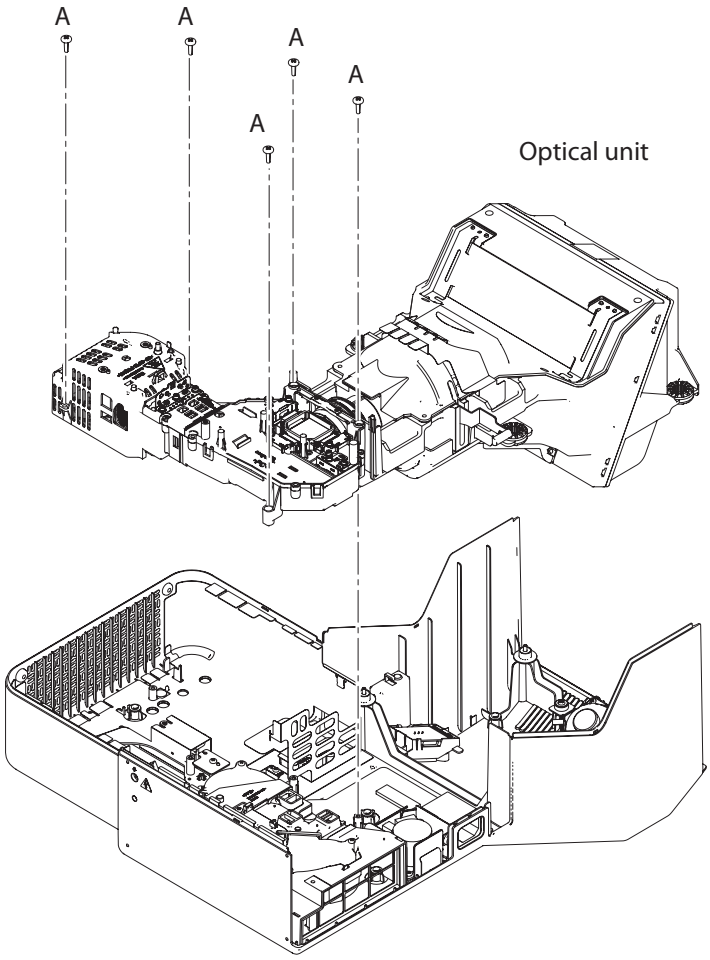


Power supply ass'y disassemble.



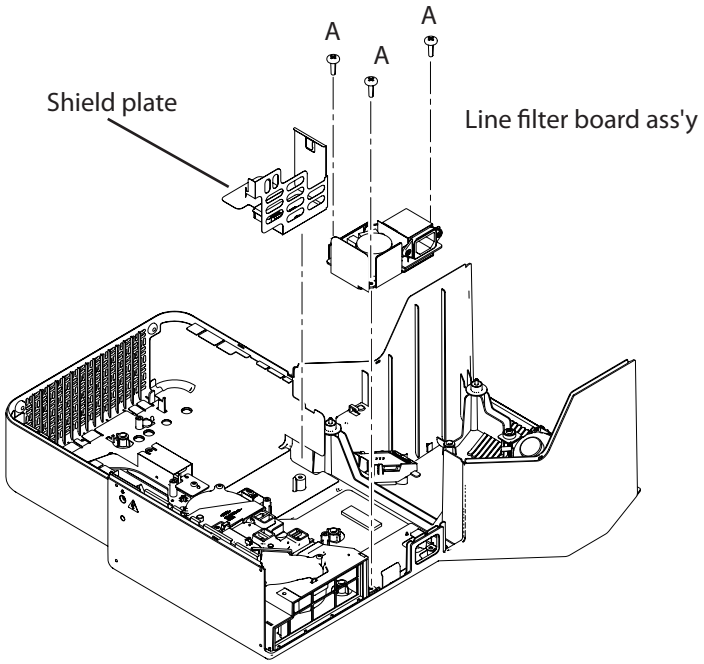
7 Optical unit removal.

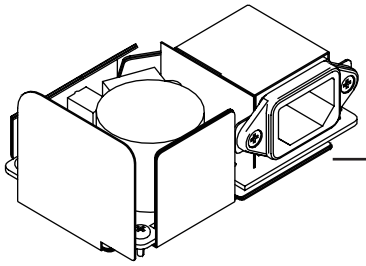
1. Remove the 5 screws-A(T3x8) and remove the Optical unit.

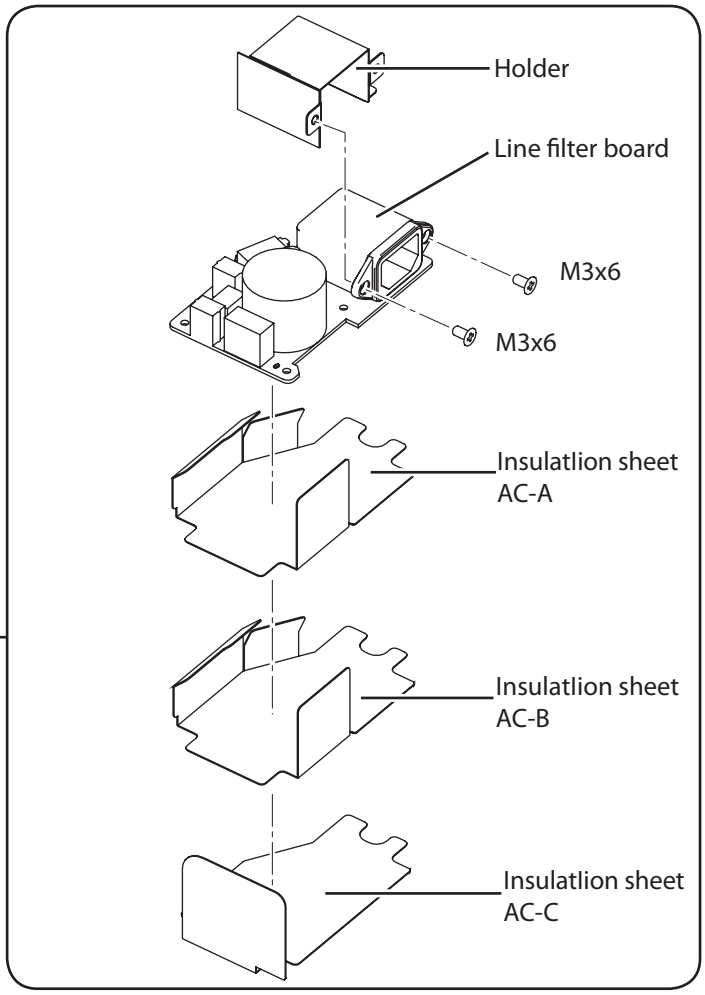


8 Line filter board removal.

1. Remove the 3 screws-A(T3x8) and remove the Line filter board ass'y.
2. Remove the Shield plate.

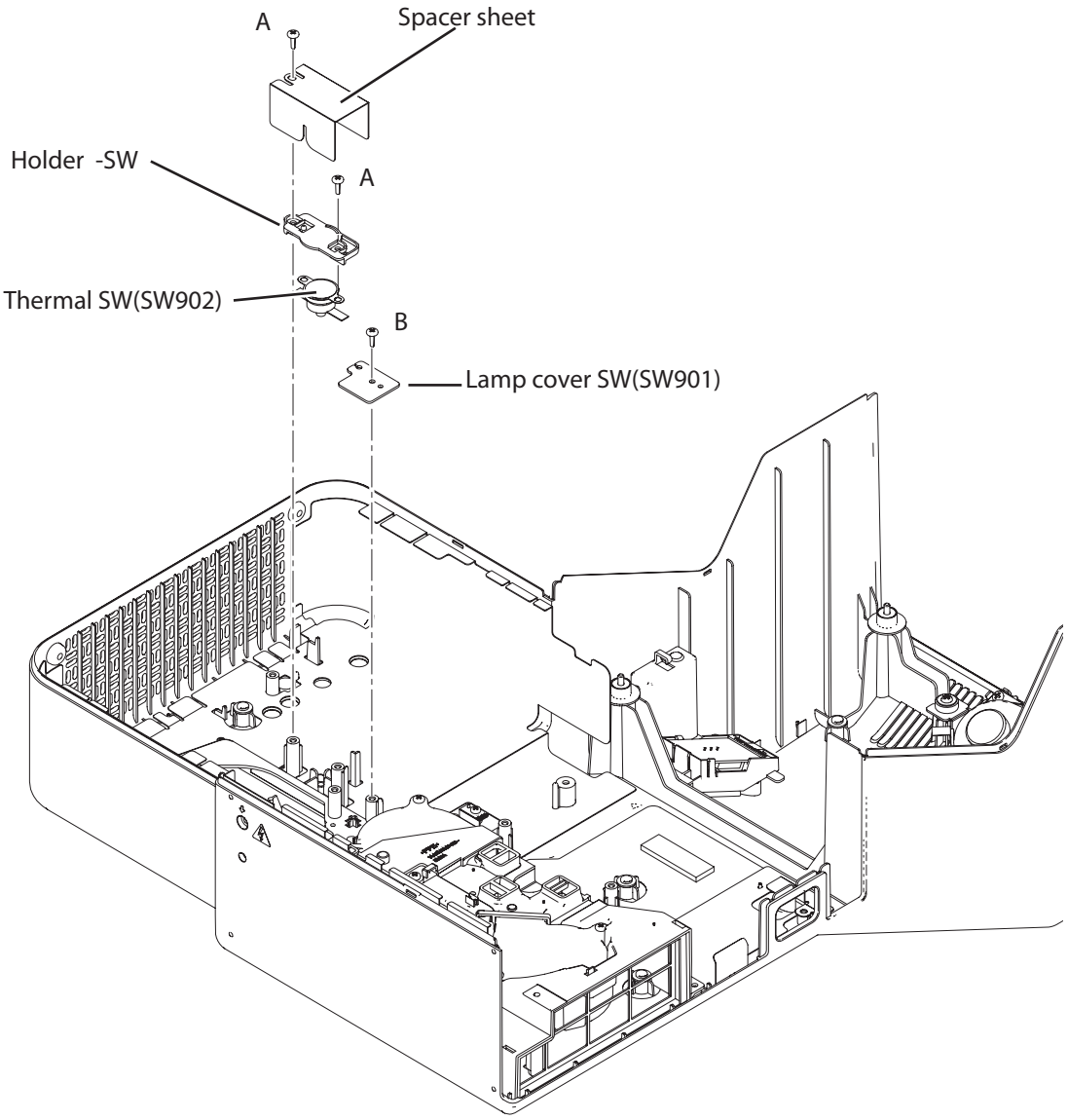






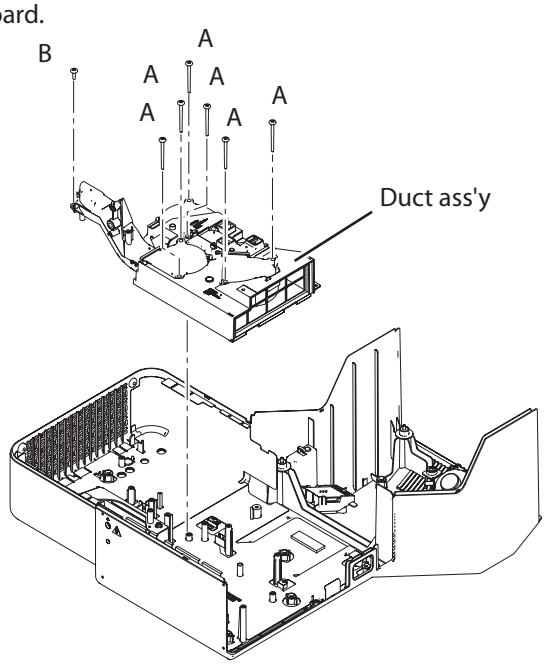
9 Lamp Cover Switch removal.

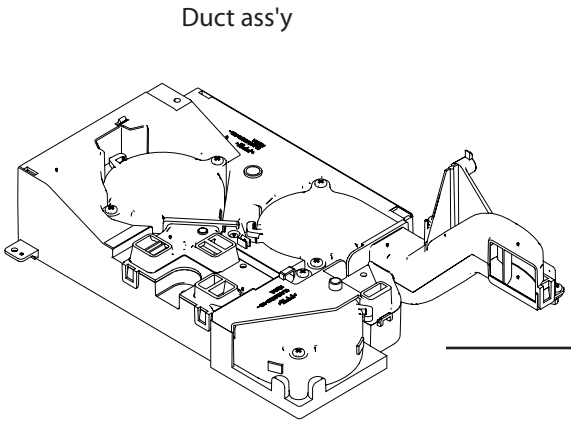
1. Remove the 2 screws-A(T3x8), remove the Spacer sheet, remove the Holder-SW and remove the Thermal Switch (SW902)
2. Remove the screw-B(T3x8) and remove the Lamp cover switch (SW901).

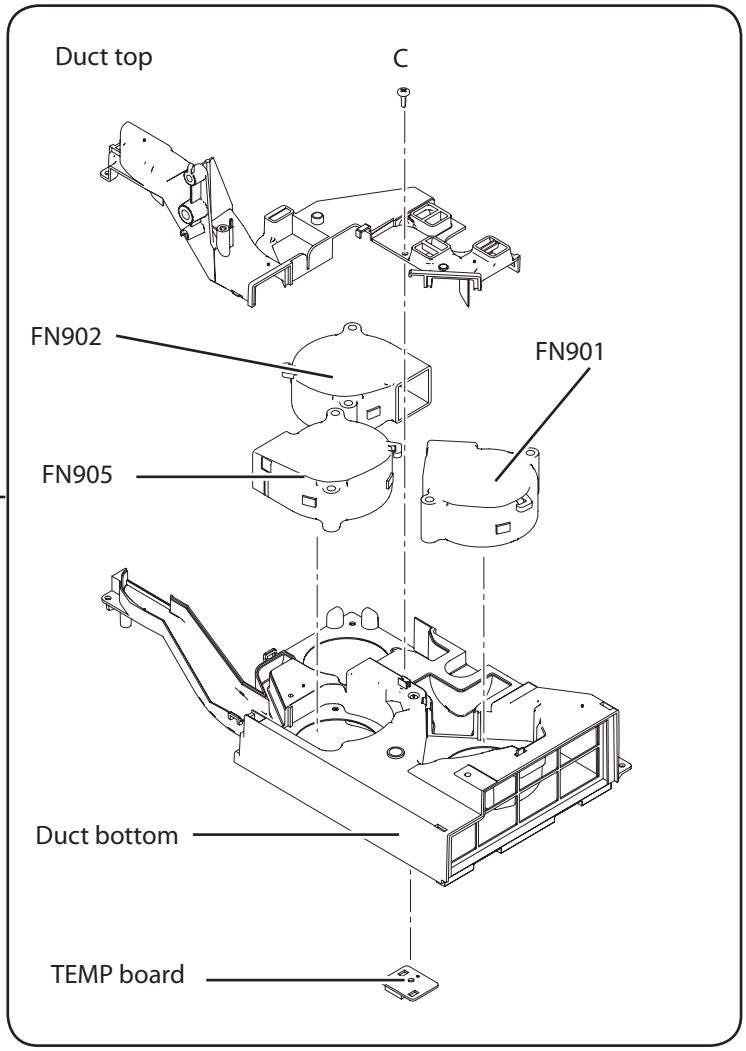


10 Duct ass'y removal.

1. Remove the 6 screws-A(T3x30), remove the screw-B(T3x8) and remove the Duct ass'y.
2. Remove the screw-C(T3x8) and remove the Duct-top.
3. Remove the Fans(FN901, FN902, FN905) and Temp board.

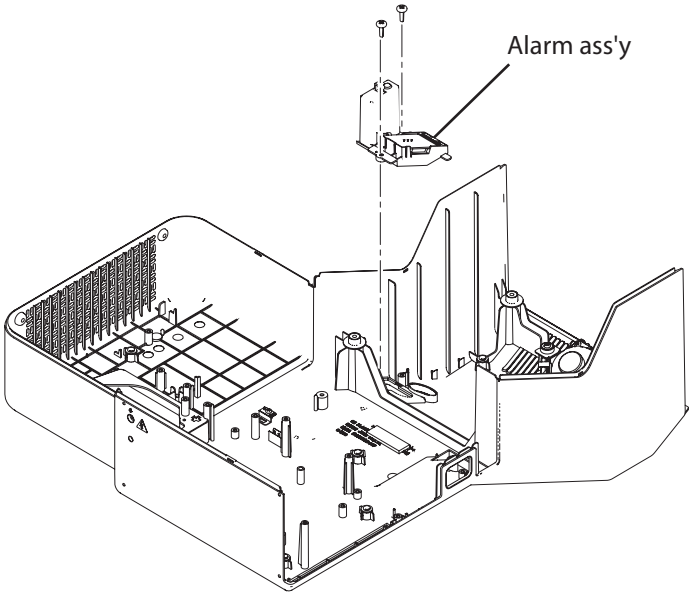


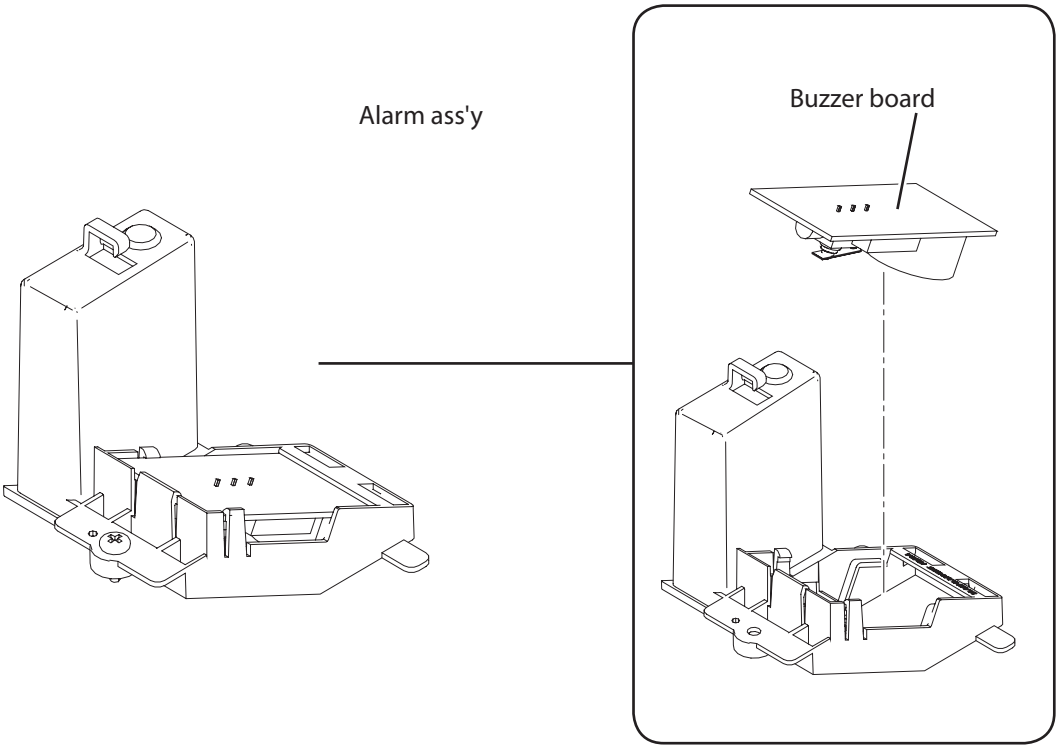




11 Alarm ass'y removal.

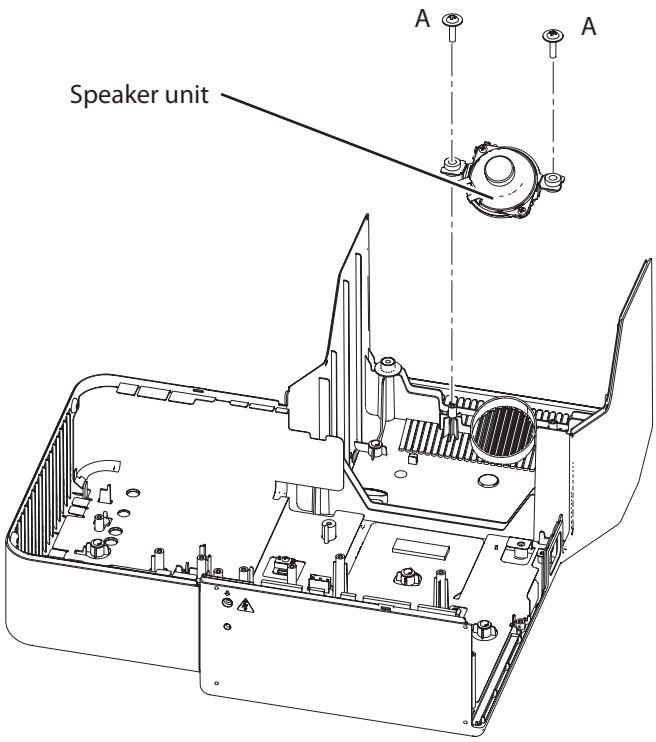
1. Remove the 2 screws(T3x8) and remove the Alarm ass'y.

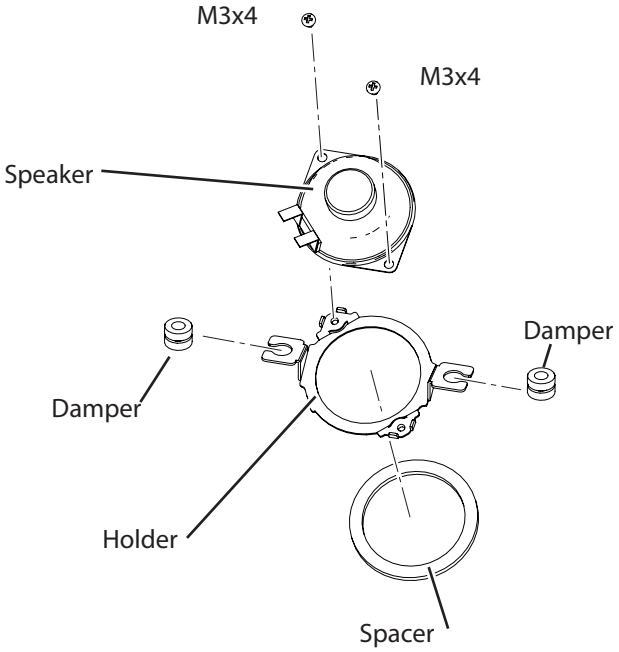




12 Speaker unit removal.

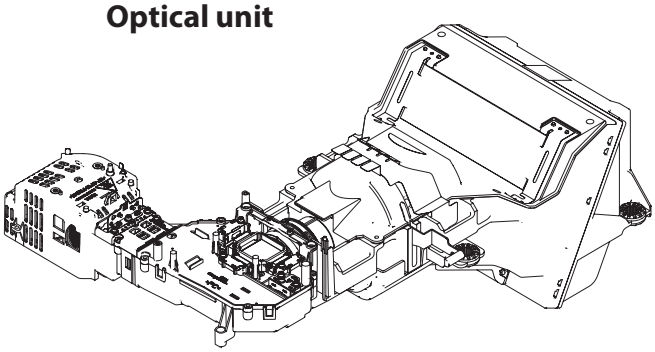
1. Remove the 2 screws-A (T3x12) and remove the speaker unit.





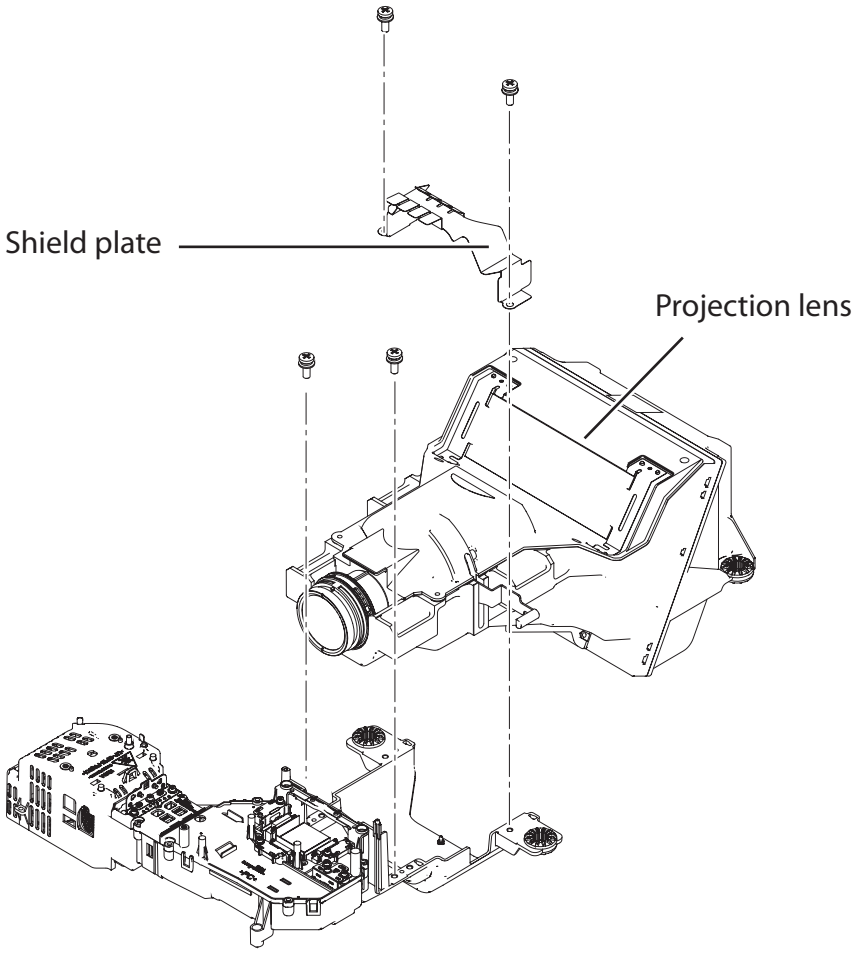
■ Optical disassemblies

Optical unit



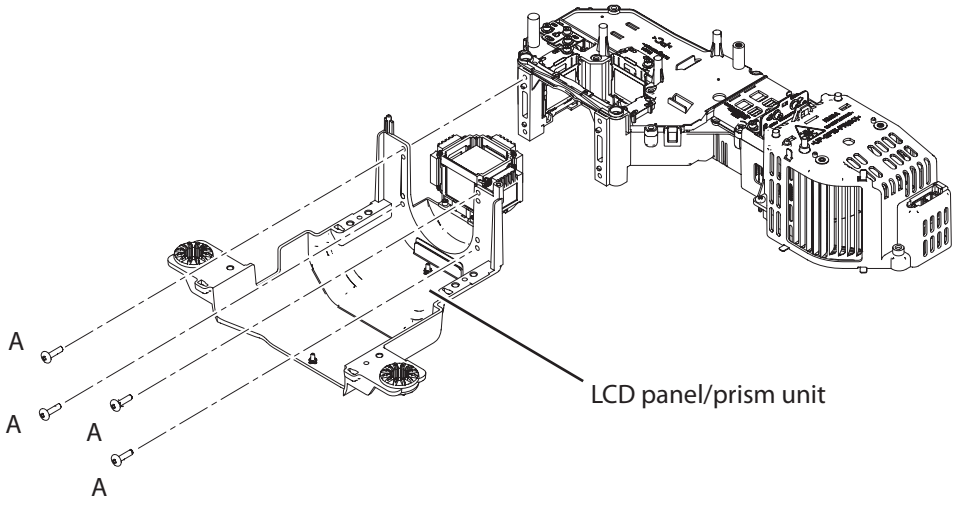
13 Projection lens removal.

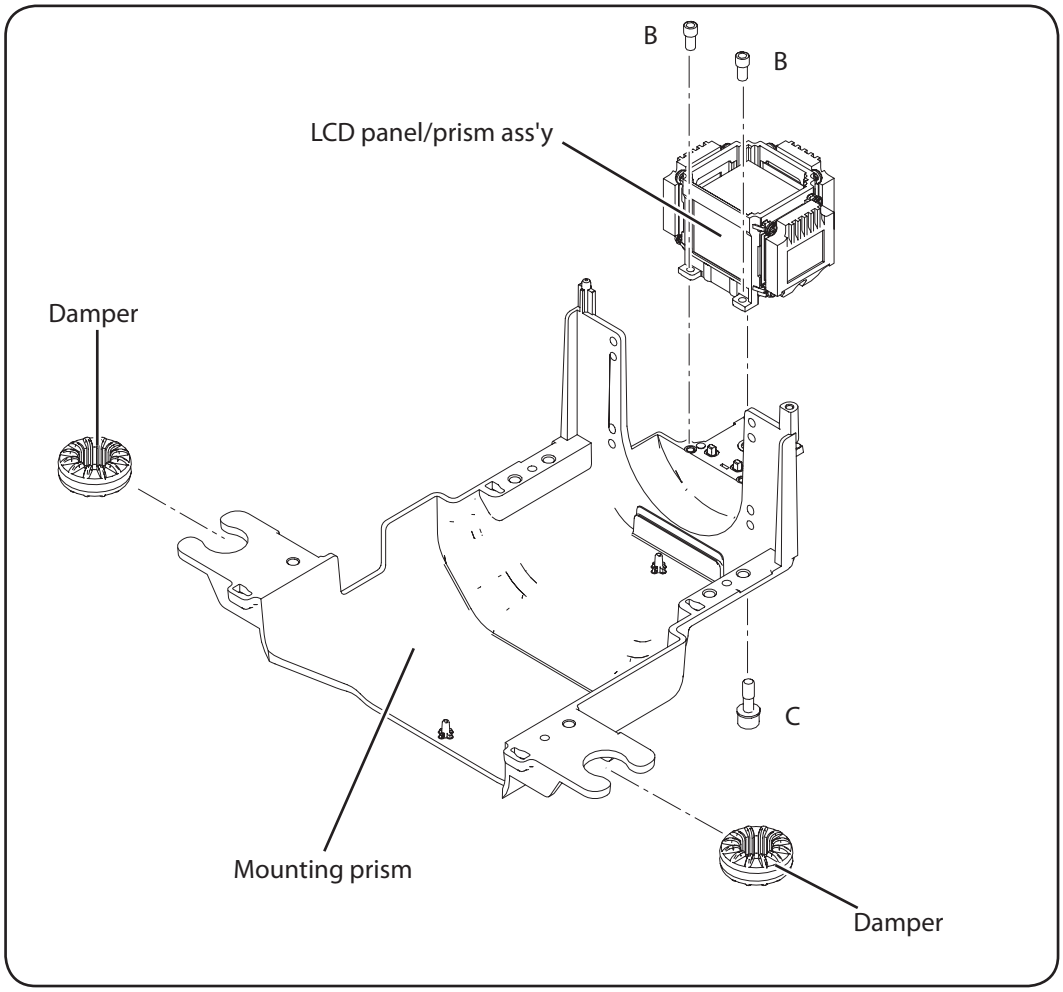
1. Remove the 4 screws (M4x12), remove the shield plate and remove the projection lens.



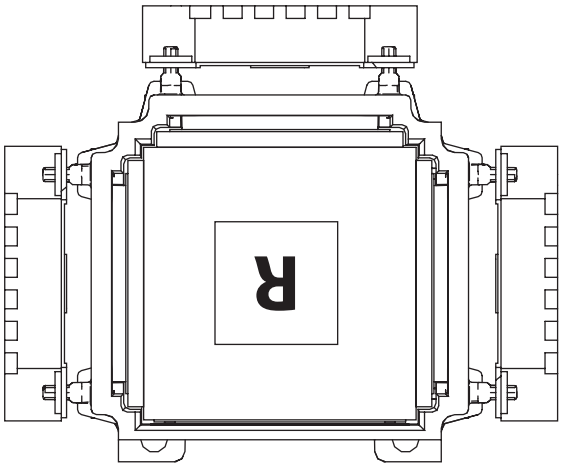
14 LCD panel/prism ass'y removal.

1. Remove the 4 screws-A (M2.5x8) and remove the LCD panel/prism unit.
2. Remove the 2 screws-B (M2.5x4), remove the screw-C (M3x10) and remove the LCD panel/prism ass'y.

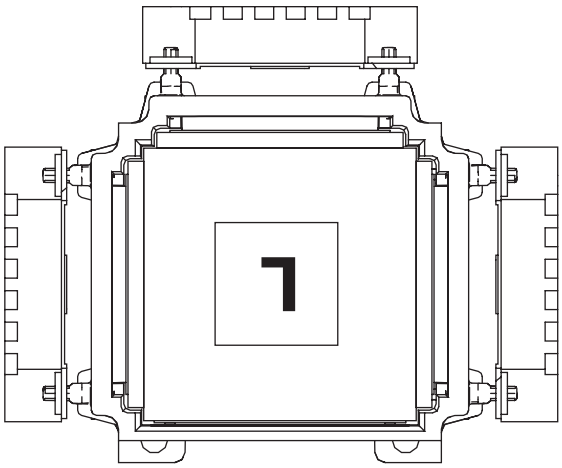




R-Type LCD Panel/Prism Ass'y



L-Type LCD Panel/Prism Ass'y



There are 2 types of LCD Panel/Prism Ass'y for this model. Either L-Type or R-Type LCD Panel/Prism Ass'y is used on the projector. Check which type of LCD Panel/Prism Ass'y is used with the figure below.
When replacing the LCD Panel/Prism Ass'y, you need to take "Panel Type Check and Setting" on the Electrical Adjustment for the replaced LCD Panel/Prism Ass'y.
The gamma-characteristics is different between L-Type and R-Type LCD Panel/Prism Ass'y.

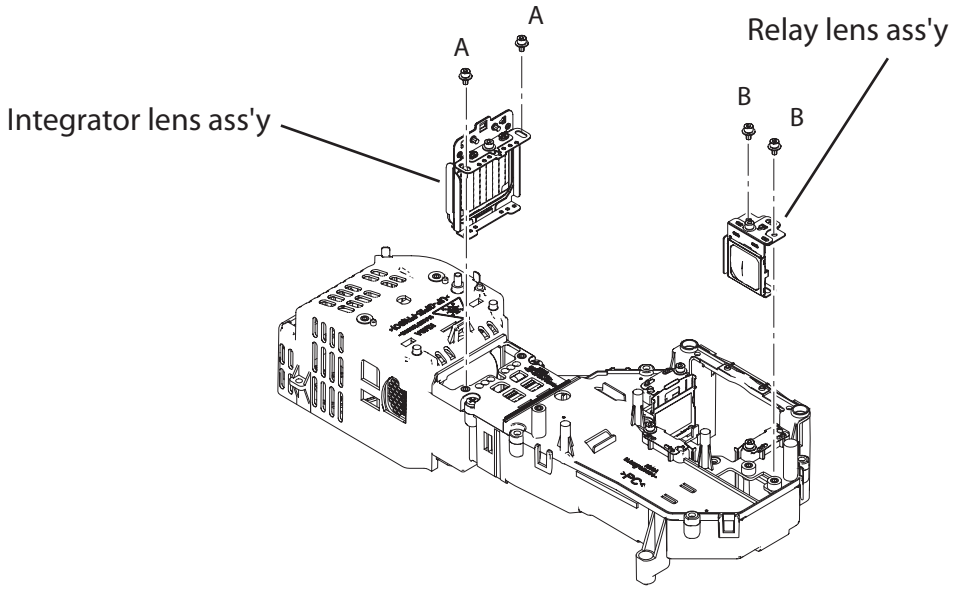
IMPORTANT NOTICE on LCD Panel/Prism Ass'y Replacement
LCD panels used for this model can not be replaced separately. Do not disassemble the LCD Panel/Prism Ass'y. These LCD panels are installed with precision at the factory. When replacing the LCD panel, should be replaced whole of the LCD panels and prism ass'y at once.
After replacing LCD Panel/Prism ass'y, please check the following points.
- Check that there is no color shading at the top, bottom, left or right of the screen. If there is, try to remove the shading following to the chapter "Optical Adjustment".
- Check the white balance. If it needs the adjustment, adjust the white balance following to the "White Balance Adjustment" , "Gamma Adjustment" and "Common Centre Adjustment" in the chapter "Electrical Adjustment".
- Check the white uniformity on the screen.
  If you find the color shading at the some part of the screen, it needs to take the color shading adjustment. This adjustment should be performed by a computer and it also requires a special software "PROJECTOR SERVICE TOOL". The software will be supplied separately and can be ordered as follows;

PROJECTOR SERVICE TOOL Ver. 4.10

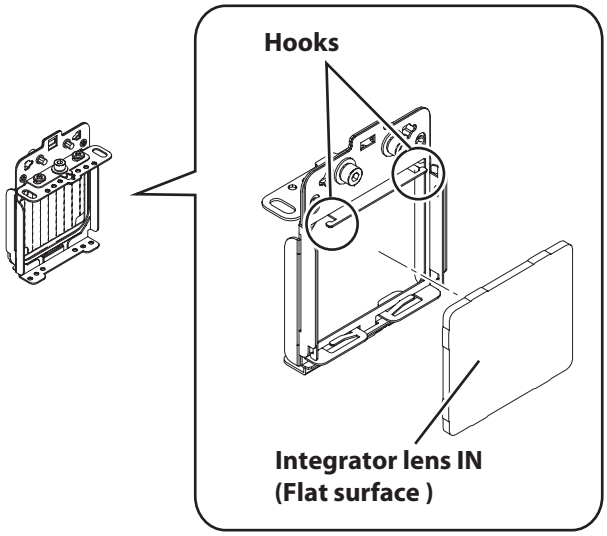
Service Parts No. 610 337 8787

15 Integrator Lens ass'y and Relay Lens ass'y removal.

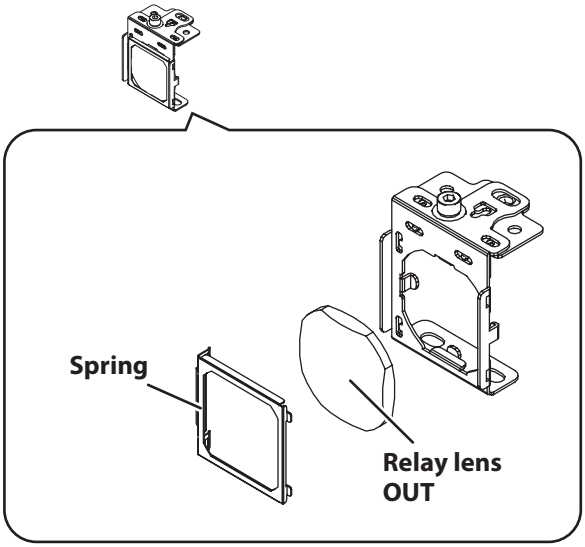
1. Remove the 2 screws-A (M2.5x5) and remove the Integrator Lens ass'y.
2. Remove the 2 screws-B (M2.5x5), remove the Relay Lens ass'y.



Integrator lens ass'y

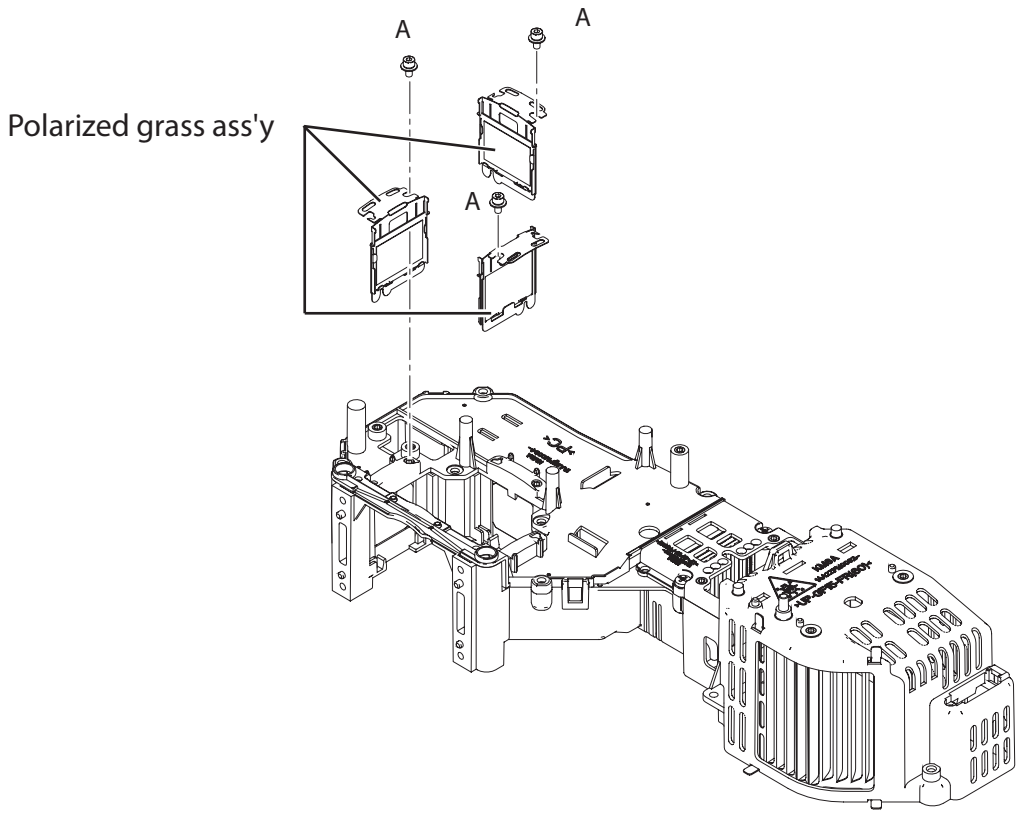


Relay lens ass'y

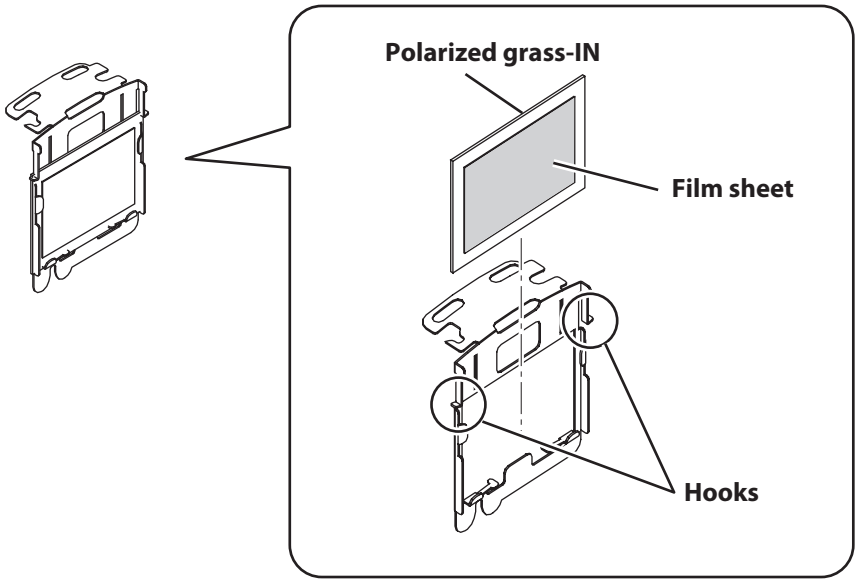


16 Polarized grass ass'y removal.

1. Remove the screw-A (M2.5x5) and remove the Polarized grass ass'y (R, G, B).

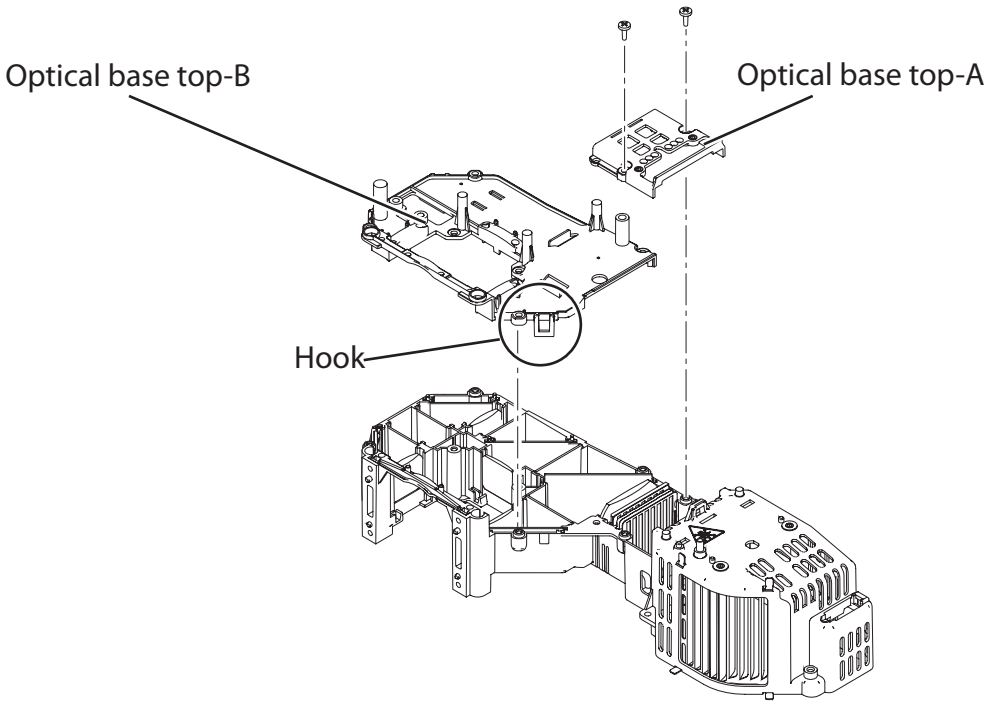


Polarized grass ass'y



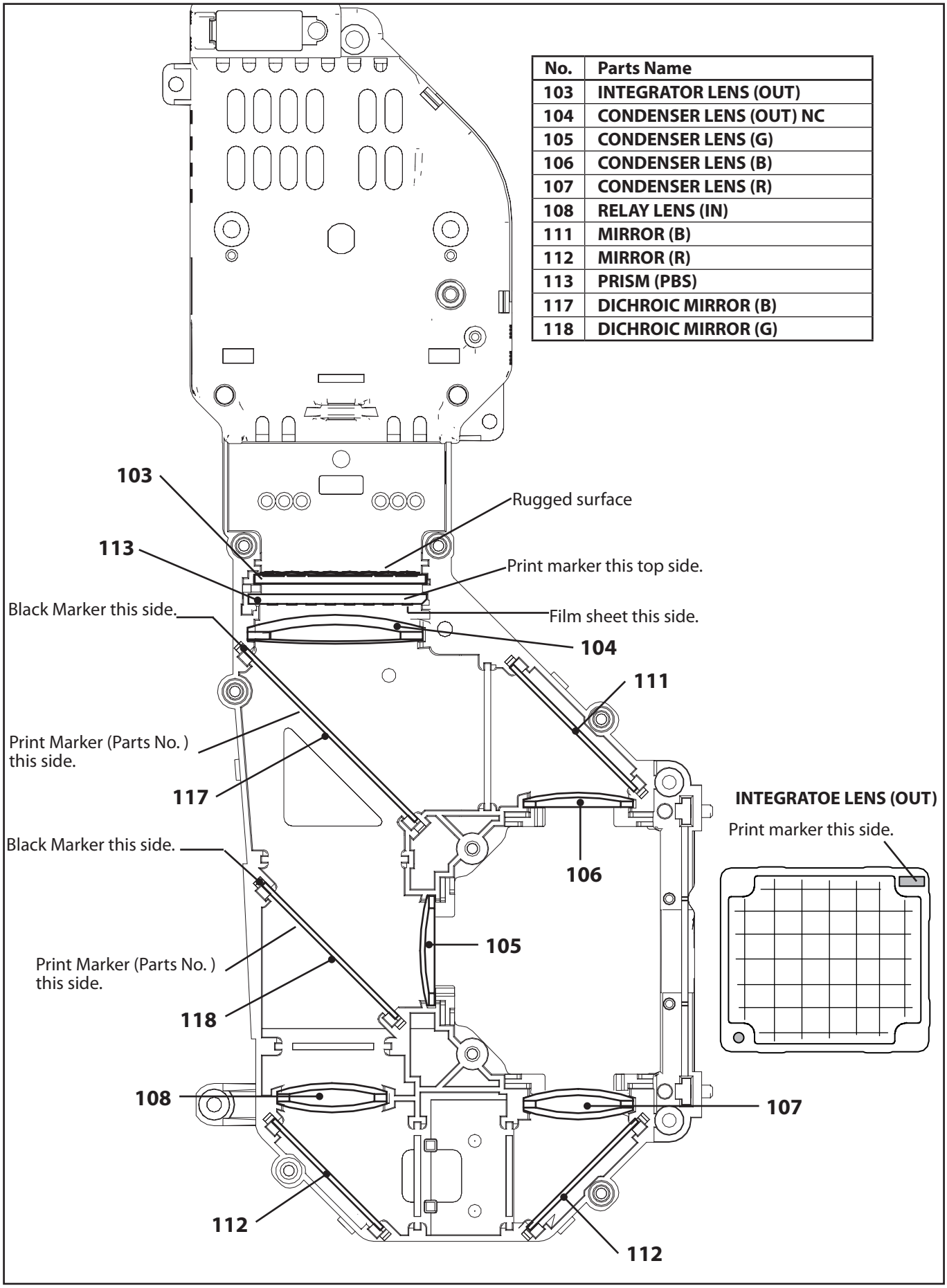
17 Optical base top removal.

1. Remove the Optical base top-B.
2. Remove the 2 screws (T3x8) and remove the Optical base top-A.



■ Optical Parts Location and direction

No.	Parts Name
103	INTEGRATOR LENS (OUT)
104	CONDENSER LENS (OUT) NC
105	CONDENSER LENS (G)
106	CONDENSER LENS (B)
107	CONDENSER LENS (R)
108	RELAY LENS (IN)
111	MIRROR (B)
112	MIRROR (R)
113	PRISM (PBS)
117	DICHROIC MIRROR (B)
118	DICHROIC MIRROR (G)



■ Adjustments

Adjustments after Parts Replacement

● : Adjustment necessary ❍ : Check necessary

		Disassembly / Replaced Parts								
		LCD/ Prism Ass'y	Integrator Lens (IN)	Relay Lens (OUT)	Polarized Glass			Projection lens	Power Board	Main Board
					R	G	B			
Optical Adjustments	Contrast Adjustment									
	R-Contrast adjustment				●					
	G-Contrast adjustment					●				
	B-Contrast adjustment						●			
	Integrator lens adjustment	❍	●							
	Relay lens-out adjustment	❍		●						
	Projection lens focus adjustment							●		
Electrical Adjustments	Fan control adjustment								●	●
	Panel type check and setting	●								●
	Auto calibration adjustment [PC]									●
	Auto calibration adjustment [Component]									●
	Auto calibration adjustment [Video]									●
	Common center adjustment	●								●
	50% white adjustment [PC]	●								●
	White balance adjustment [PC]	❍								❍
	50% white adjustment [Video]	●								●
	White balance adjustment [Video]	❍								❍
	White uniformity adjustment	❍								❍

■ Optical Adjustments

Before taking optical adjustments below, remove the Cabinet Top following to the "Mechanical Disassembly".
Adjustments require a 2.0mm hex wrench and a slot screwdriver. When you adjust Integrator lens or Relay lens adjustment, you need to disconnect FPC cables of LCD panels on the main board.
Optical adjustment requires a 2.0mm hex wrench and a slot screwdriver.
Note: Do not disconnect connectors on the main board, because the projector cannot turn on due to operate the power failure protection.

WARNING : USE UV RADIATION EYE AND SKIN PROTECTION DURING SERVICING

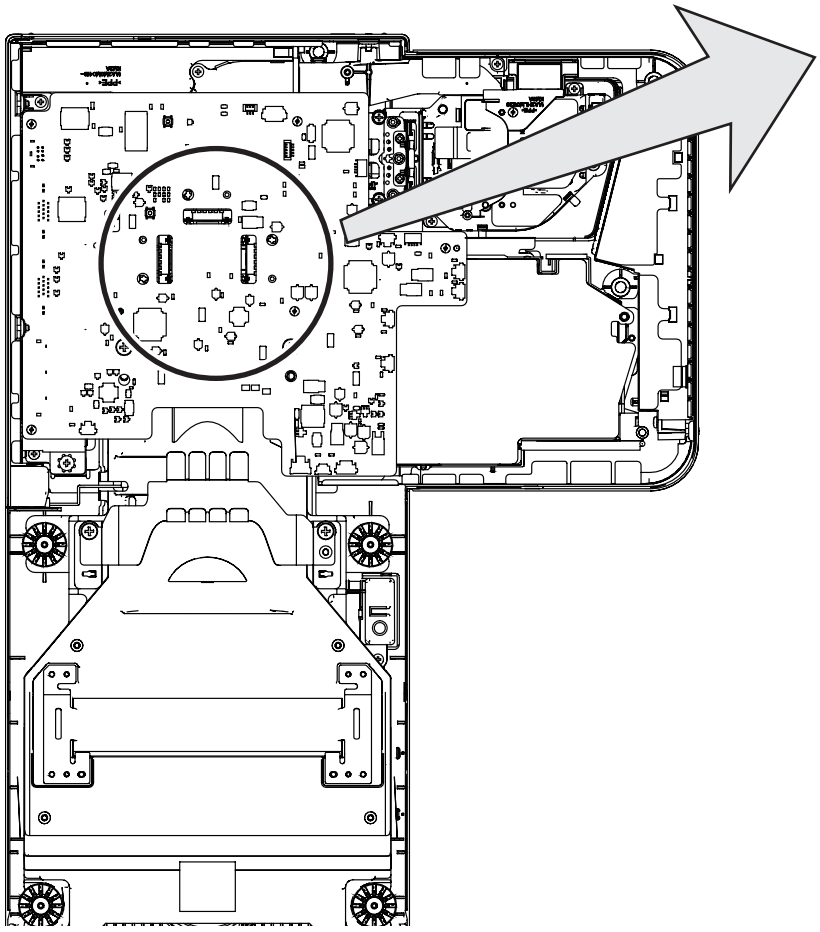
CAUTION: To prevent suffer of UV radiation, those adjustment must be completed within 25 minutes.

Contrast adjustment

[Before Adjustment]
- Input a 100% of black raster signal.

1 Loosen a screw **A (Fig.1)** on the polarized glass mounting base which you intend to adjust.
2 Adjust the slot **B** to obtain the darkest brightness on the screen by using a slot screwdriver.
3 Tighten the screw **A** to fix the polarized glass mounting base.

Repeat steps 1 to 3 for remaining polarized glasses.



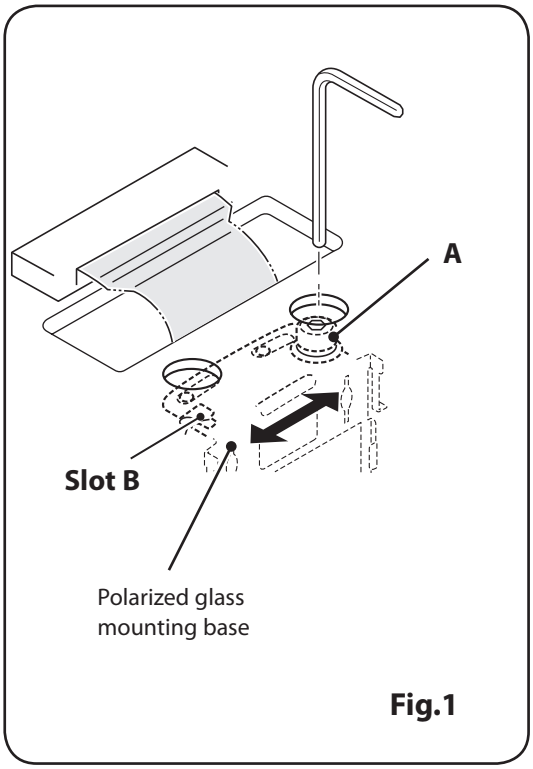
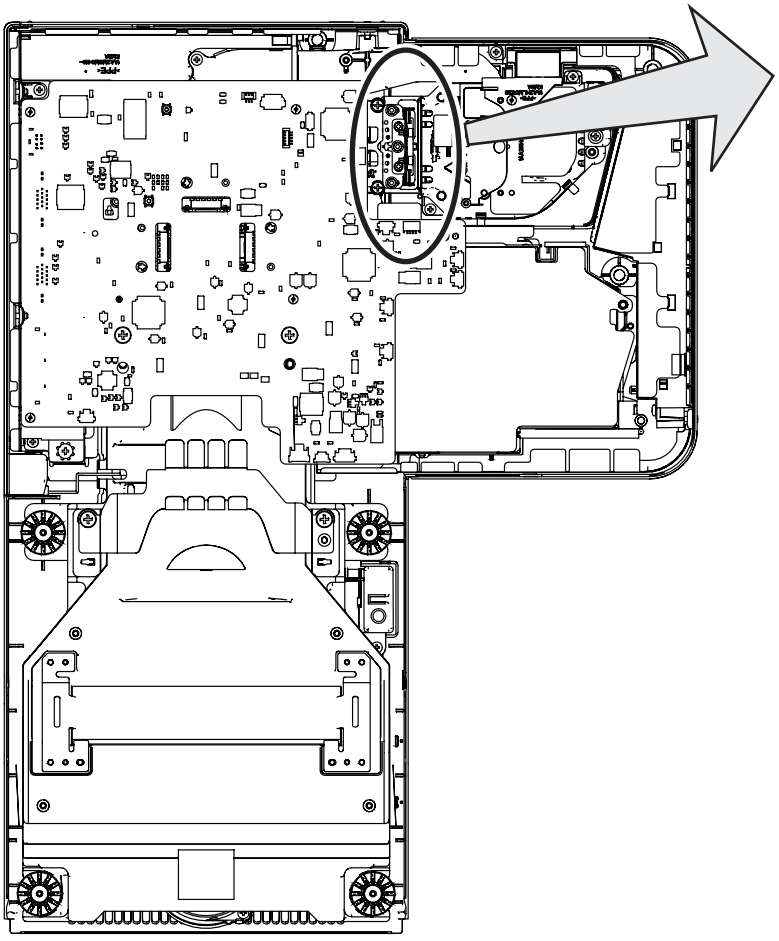


Fig.1

Integrator lens adjustment

1 Turn the projector on by a state of without FPC cables.
2 Project all of lights on the screen.
3 Adjust the adjustment base of integrator lens assy to make color uniformity in white.
1) If the shading appears on the left or right of the screen as shown in **Fig.2-1**, loosen 1 screw **A** , and adjust the slot **B** to make color uniformity in white by using a slot screwdriver.
2) If the shading appears on the top or bottom of the screen as shown in **Fig.2-2**, loosen 2 screws **C**, and insert a slot screwdriver into the slot **D** and adjust color uniformity in white by turning a slot screwdriver up or down.
4 Tighten screws **A** and **C** to fix the Integrator lens unit.

Note:
The relay lens adjustment must be carried out after completing this adjustment.



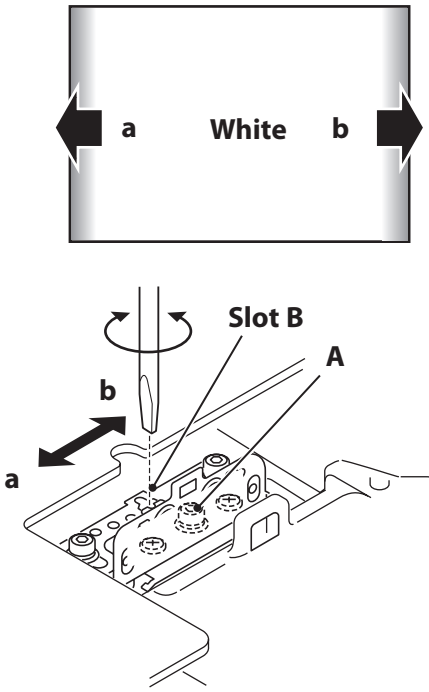


Fig.2-1
Moving of slot B

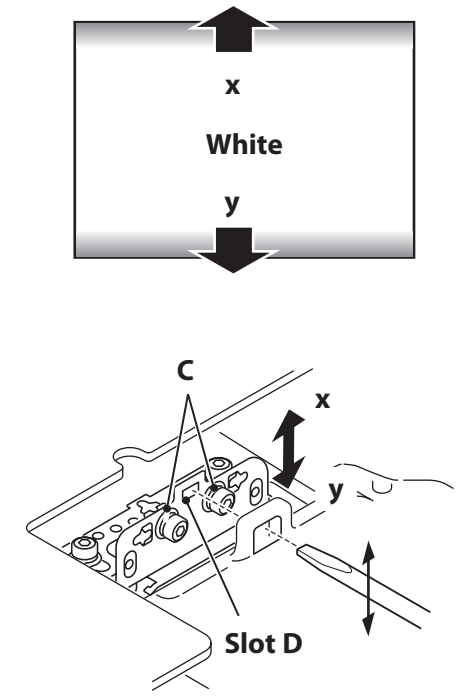
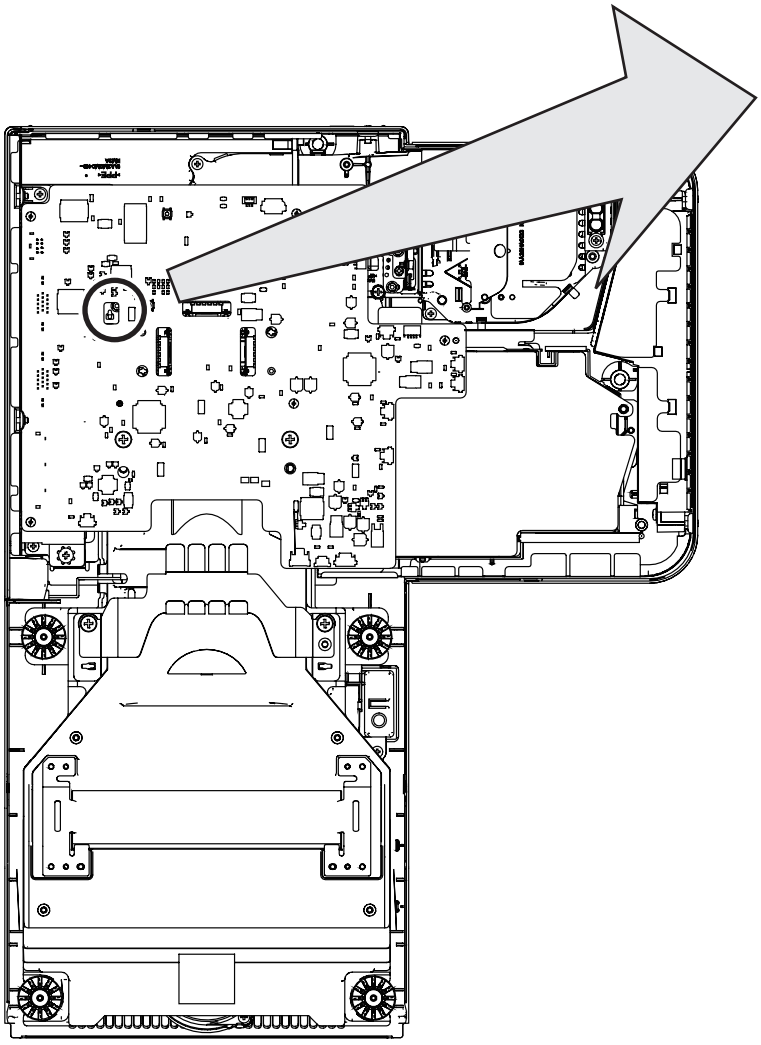


Fig.2-2
Moving of Slot D

Relay lens-Out adjustment

1 Turn the projector on by a state of without FPC cables.
2 Project all of lights on the screen.
3 Adjust the adjustment base of relay lens assy to make color uniformity in white.
If the shading appears on the left or right of the screen as shown in **Fig.3**, loosen 1 screw **A**, and adjust the slot **B** to make color uniformity in white by using a slot screwdriver.
4 Tighten the screw **A** to fix the relay lens unit.



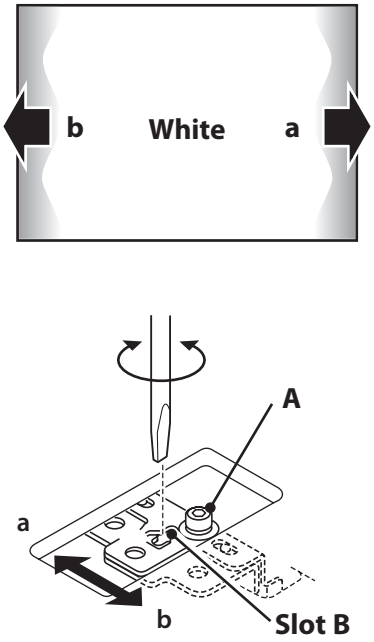


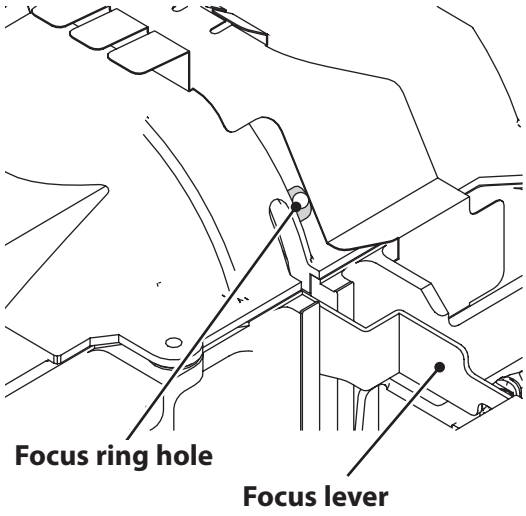
Fig.3
Moving of slot B

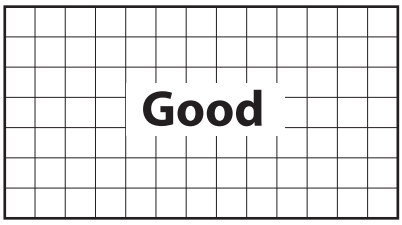
Projection lens focus adjustment

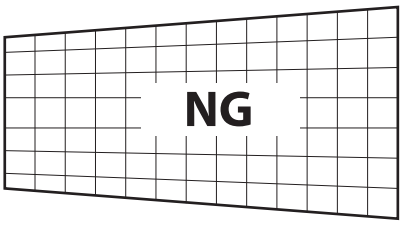
[Before Adjustment]

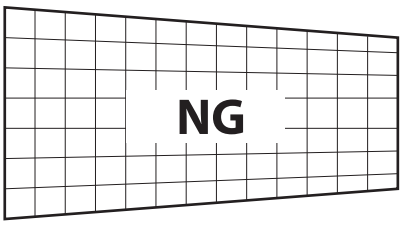
1 The projector is set from the screen to 8 cm.
2 The hole of the focus ring is set to the position of figure by operating the focus lever. (Screen size 78")
3 Input a cross pattern.
4 The position of the projector is matched so that the picture may become a rectangle. (Do not become a trapezoid.)

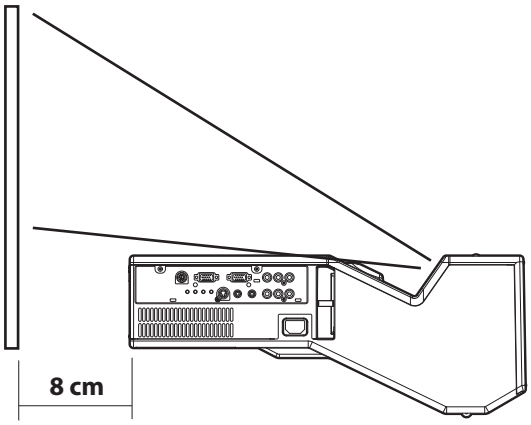
Projection lens

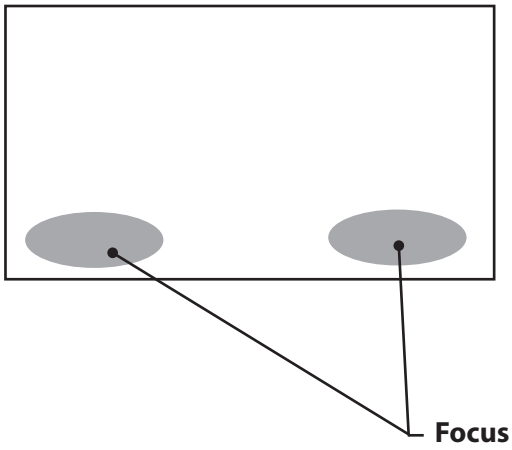












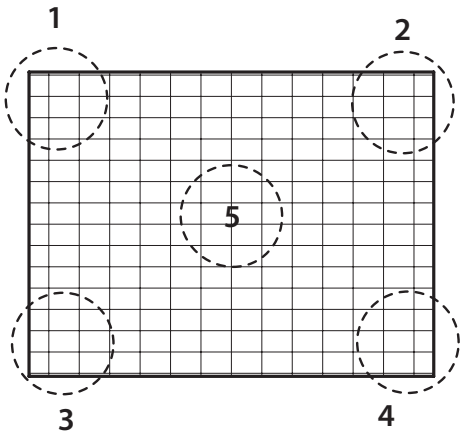
1 Loosen the 4 screws-**A** (**A1, A2, A3, A4**).

2 Right and left focus under the screen is adjusted by using slot **B**. (Pre-adjustment)

3 The screws-**A1, A2** are lightly tightened and temporary is fixed.

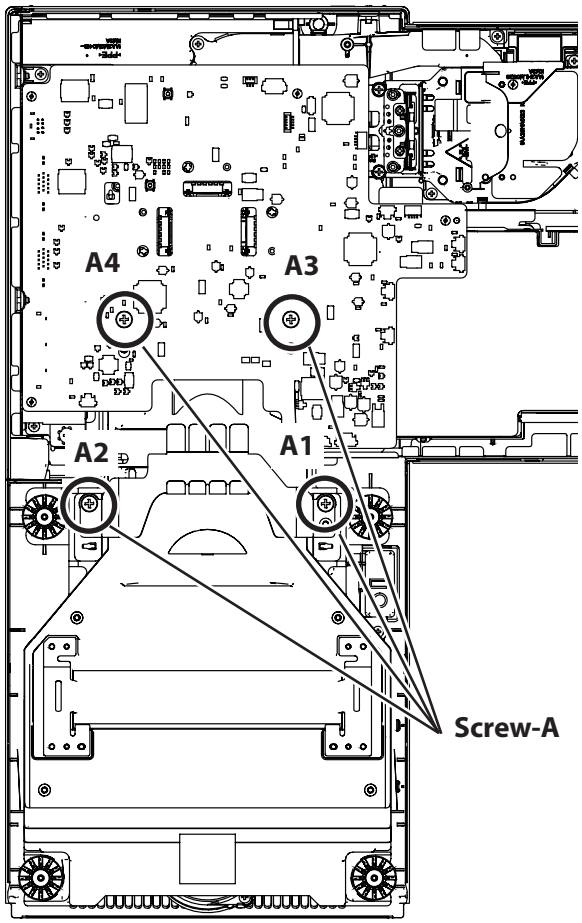
4 Focus on the entire screen is adjusted.

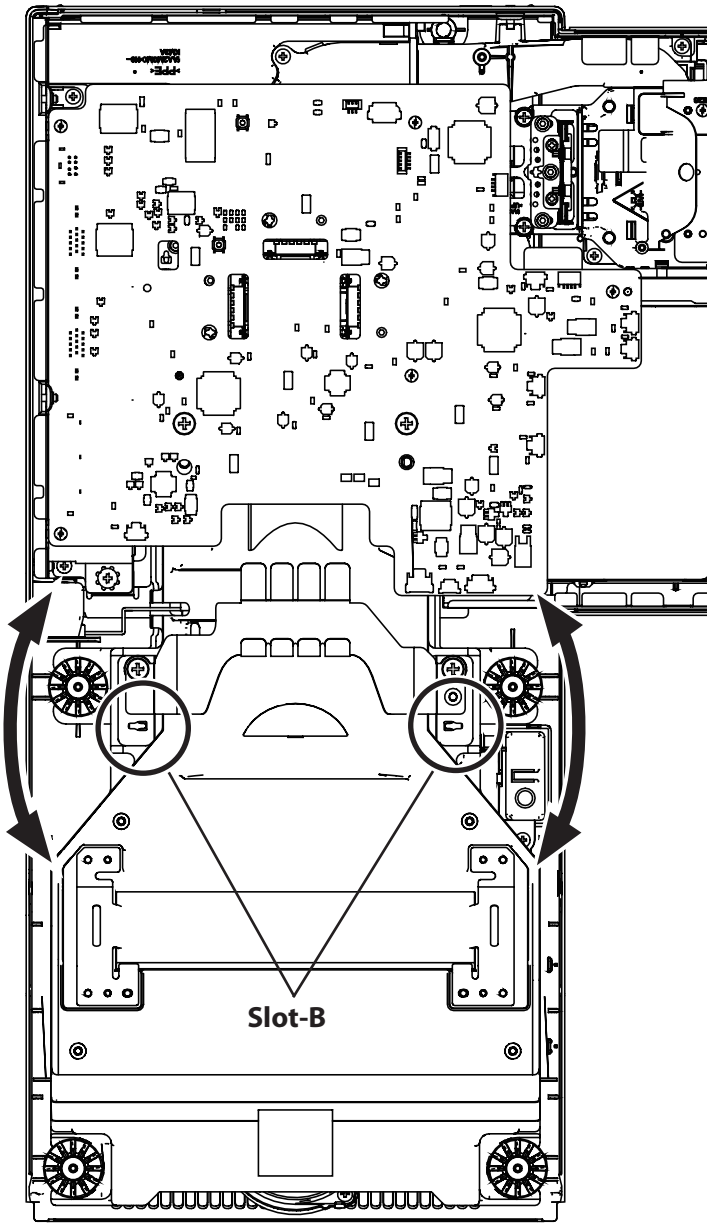
5 Tighten the 4 screws-**A** (**A1, A2, A3, A4**).



Caution :

Confirm focus after it tightens up the screws.





Electrical Adjustments

Service Adjustment Menu Operation

To enter the service mode

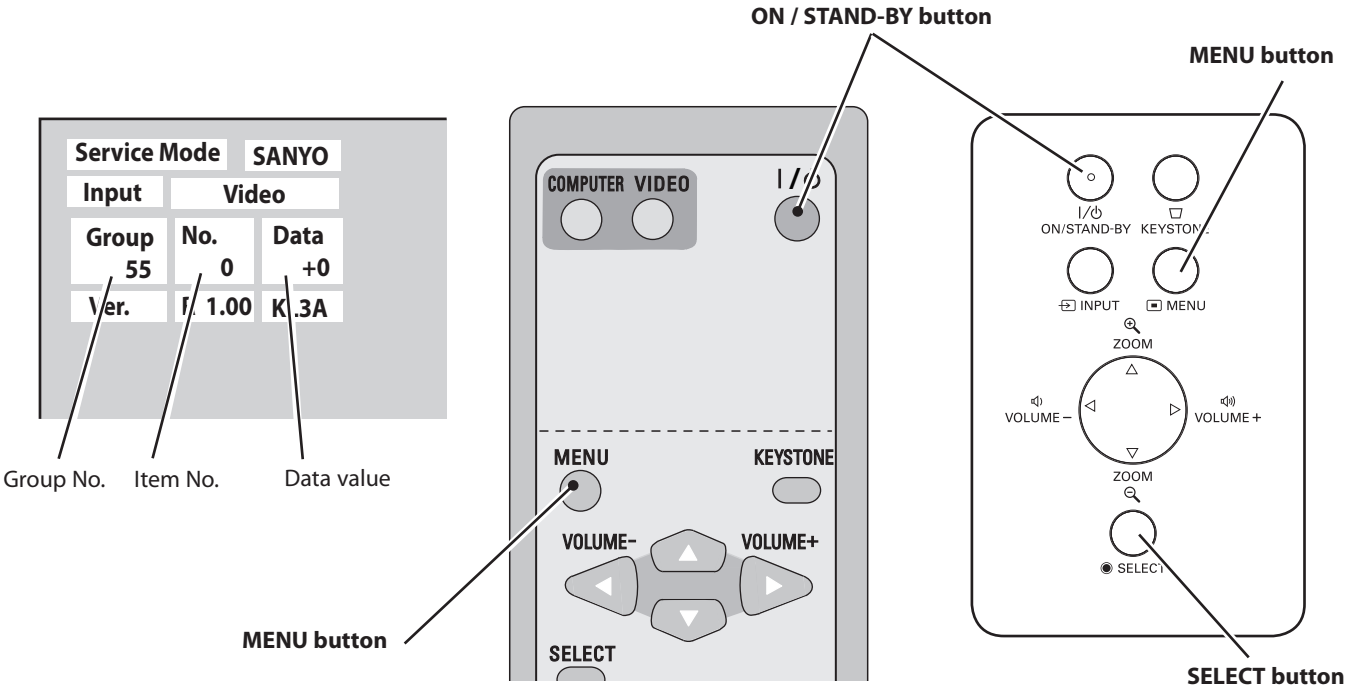
To enter the "Service Mode", press and hold the **MENU** and **SELECT buttons** on the projector simultaneously for 3 seconds. Or press and hold the **MENU** button on the remote control unit for more than 20 seconds. The service menu appears on the screen as follows.

To adjust service data

Select the adjustment group no. by pressing the **MENU button** (increase) or **SELECT button** (decrease), and select the adjustment item no. by pressing the pointer ▲ or ▼ **button**, and change the data value by pressing the ◀ or ▶ **button**. Refer to the "Service Adjustment Data Table" for further description of adjustment group no., item no. and data value.

To exit the service mode

To exit the service mode, press the **ON/STAND-BY button**.



Memory IC (IC1391) Replacement

Memory IC on the main board stores the data for the service adjustments, and should not be replaced except for the case of defective device.
If replaced, the re-adjustments are required following to the "Electrical Adjustments".
The data of lamp replacement counter is stored in the Memory IC.
Please note that the lamp replace counter will be reset when the memory IC is replaced.
(Lamp replace counter cannot be set to the previous value.)

● **Caution to memory IC replacement**
When memory IC is replaced with new one, the CPU writes down the default data of the service adjustments to the replaced IC as the mentioned on the service adjustment table. As these data are not the same data as factory shipped data, it should be required to perform the re-adjustments following to the "Electrical Adjustments".
Please note that in this case the lamp replace counter will be reset.

● **Caution of Main Board replacement (in the case memory IC is not defective)**
When the main board is replaced, memory IC should be replaced with the one on previous main board. After replacement, it should be required to perform the re-adjustments following to the "Electrical Adjustments".
In this case, the lamp replace counter can be kept the value as before.

Circuit Adjustments

CAUTION: The each circuit has been made by the fine adjustment at factory. Do not attempt to adjust the following adjustments except requiring the readjustments in servicing otherwise it may cause loss of performance and product safety.

WARNING : USE UV RADIATION EYE AND SKIN PROTECTION DURING SERVICING.

CAUTION:
To prevent suffer of UV radiation, those adjustments must be completed within 25 minutes.

[Adjustment Condition]

● Input signal

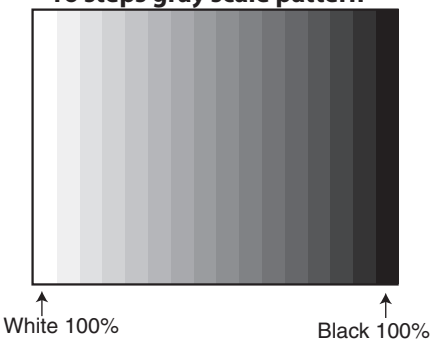
Video signal ..... 1.0Vp-p/75Ω terminated, 16 steps gray scale (Composite video signal)

Component Video signal ..... 0.7Vp-p/75Ω terminated, Color Bar (Component video signal)

Computer signal ..... 0.7Vp-p/75Ω terminated, 16 steps gray scale pattern

● Image control mode ..... "STANDARD" mode unless otherwise noted.

16 steps gray scale pattern



Note:

* Please refer to "Service Adjustment Menu Operation" for entering the service mode and adjusting the service data.

Output Voltage adjustment

After replacing the Power Board readjust the Output voltage adjustment as follows.

1. Connect a digital voltmeter to pins 2 (+) and 1 (-) of **K6A**.
2. Setting Lamp control "**High**".
3. Adjust the voltage by using VR601 as following.

AC Input	Reading
230V	370V ±2V

Caution:

Be sure to connect the lamp and lamp ballast when taking this adjustment.

* This adjustment is not required even if the power board is replaced because this adjustment is carried out before parts shipment.

1. Fan Control adjustment

1. Enter the service mode.
2. Connect a digital voltmeter to test point "**TPFANA**" (+) and chassis ground (-). Select group no. "**250**", item no. "**0**" and change data value to adjust voltage to be **5.0 ±0.1V**.
3. Connect a digital voltmeter to test point "**TPFANB**" (+) and chassis ground (-). Select item no. "**2**" and change data value to adjust voltage to be **5.0 ±0.1V**.
4. Connect a digital voltmeter to test point "**TPFANC**" (+) and chassis ground (-). Select item no. "**4**" and change data value to adjust voltage to be **5.0 ±0.1V**.
5. Connect a digital voltmeter to test point "**TPFANA**" (+) and chassis ground (-). Select item no. "**1**" and change data value to adjust voltage to be **13.5 ±0.1V**.
6. Connect a digital voltmeter to test point "**TPFANB**" (+) and chassis ground (-). Select item no. "**3**" and change data value to adjust voltage to be **13.5 ±0.1V**.
7. Connect a digital voltmeter to test point "**TPFANC**" (+) and chassis ground (-). Select item no. "**5**" and change data value to adjust voltage to be **13.5 ±0.1V**.

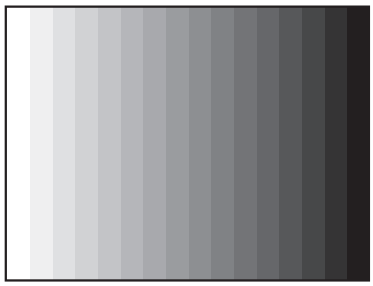
2. Panel Type Check and Setting

* Before setting, you need to check which type of LCD panel is placed on the projector according to the item "LCD Panel/Prism Ass'y removal" in the chapter "Optical Parts Disassembly".

1. Enter the service mode.
2. Panel Type Check
   Select group no. "**290**", item no. "**0**". Check the data value as follows;
   Data value: 0 For L-Type of LCD Panel
   Data value: 20 For R-Type of LCD panel
3. Panel Type Setting
   Select group no. "**290**", item no. "**1**" and change data value from 10 to 0 or 20 depending on your LCD Panel type. When the data value reaches 0 or 20, it returns to 10 quickly. The gamma-characteristics changes according to your selection.

3. Auto Calibration adjustment [PC]

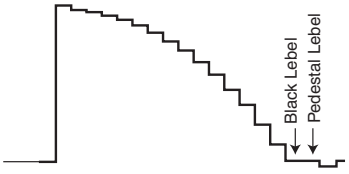
1. Enter the service mode.
2. Receive the 16-step grey scale computer signal with **Computer1 [RGB]** mode.
   Lamp control **Normal** mode.
   G-sync Off
3. To start the auto-calibration for PC adjustment, select group no. "**260**", item no. "**0**" and then change data value from "**0**" to "**1**". After the auto-calibration completed, "OK" will appear on the screen.



Below adjustments are performed when the above auto calibration is failed.

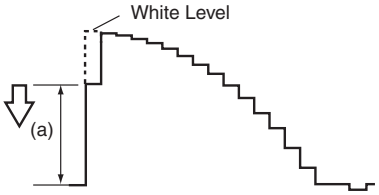
Pedestal adjustment [PC]

1. Enter the service mode.
2. Receive the 16-step grey scale computer signal with **Computer1 [RGB]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select group no. "**0**", item no. "**0**" and change data value to adjust the pedestal level and black level to be the same level.
5. Connect an oscilloscope to test point "**TP35R**" (+) and chassis ground (-).
6. Select item no. "**1**" and change data value to adjust the pedestal level and black level to be the same level.
7. Connect an oscilloscope to test point "**TP35B**" (+) and chassis ground (-).
8. Select item no. "**2**" and change data value to adjust the pedestal level and black level to be the same level.



Gain adjustment [PC]

1. Enter the service mode.
2. Receive the 16-step grey scale computer signal with **Computer1 [RGB]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select group no. "**0**", item no. "**3**" and adjust the amplitude "**a**" to be minimum by changing the Data value.
5. Connect an oscilloscope to test point "**TP35R**" (+) and chassis ground (-).
6. Select group no. "**0**", item no. "**4**" and adjust the amplitude "**a**" to be minimum by changing the Data value.
7. Connect an oscilloscope to test point "**TP35B**" (+) and chassis ground (-).
8. Select group no. "**0**", item no. "**5**" and adjust the amplitude "**a**" to be minimum by changing the Data value.



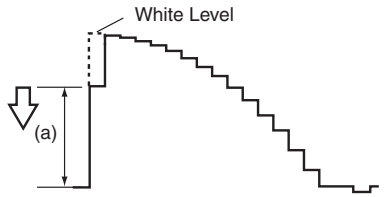
4. Auto Calibration adjustment [Video]

1. Enter the service mode.
2. Receive the 16-step grey scale composite video signal with **Video [Video]** mode.
3. To start the auto-calibration for Component adjustment, select group no. "**260**", item no. "**0**" and then change data value from "**0**" to "**1**". After the auto-calibration completed, "OK" will appear on the screen.

below adjustment is performed when the above auto calibration is failed.

Gain adjustment [Video]

1. Enter the service mode.
2. Receive the 16-step grey scale composite video signal with **Video [Video]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select group no. "**20**", item no. "**0**" and adjust the amplitude "**a**" to be minimum by changing the Data value.



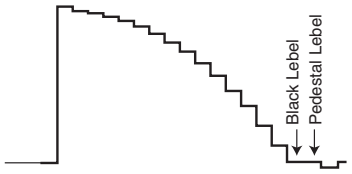
5. Auto Calibration adjustment [Component]

1. Enter the service mode.
2. Receive the Color Bar 480i-component signal with **Video [Component]** mode.
3. To start the auto-calibration for Component adjustment, select group no. "**260**", item no. "**0**" and then change data value from "**0**" to "**1**". After the auto-calibration completed, "OK" will appear on the screen.

Below adjustments are performed when the above auto calibration is failed.

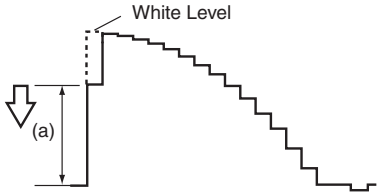
Pedestal adjustment [Component]

1. Enter the service mode.
2. Receive the Color Bar 480i-component signal with **Video [Component]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select group no. "**0**", item no. "**0**" and change data value to adjust the pedestal level and black level to be the same level.
5. Connect an oscilloscope to test point "**TP35R**" (+) and chassis ground (-).
6. Select item no. "**1**" and change data value to adjust the pedestal level and black level to be the same level.
7. Connect an oscilloscope to test point "**TP35B**" (+) and chassis ground (-).
8. Select item no. "**2**" and change data value to adjust the pedestal level and black level to be the same level.



Gain adjustment [Component]

1. Enter the service mode.
2. Receive the Color Bar 480i-component signal with **Video [Component]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select group no. "**0**", item no. "**3**" and adjust the amplitude "**a**" to be minimum by changing the Data value.

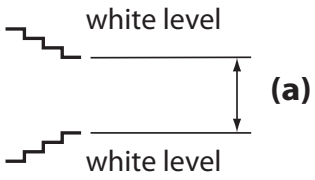


6. Common Center adjustment

1. Enter the service mode.
2. Receive the 50%-Whole Gray computer signal with **Computer1 [RGB]** mode.
3. Select group no. "**100**", item no. "**92**" and change data value to "2" to reduce the panel frequency.
4. Project only **green** light component to the screen.
5. Select group no. "**101**", item no. "**1**" and change data value to obtain the minimum flicker on the screen.
6. Project only **red** light component to the screen.
7. Select item no. "**0**" and change data value to obtain the minimum flicker on the screen.
8. Project only **blue** light component to the screen.
9. Select item no. "**2** and change data value to obtain the minimum flicker on the screen.
10. Select group no. "**100**", item no. "**92**" and change data value to "0" to reset the panel frequency.

7. 50% White adjustment [PC]

1. Enter the service mode.
2. Receive the 16-step grey scale computer signal with **Computer1 [RGB]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select group no. "**100**", item no. "**6**" and change data value to adjust amplitude "**a**" to be **1.6 ±0.1V**.



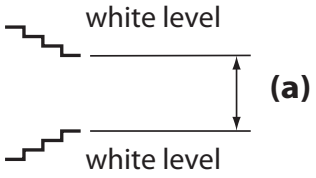
8. White Balance adjustment [PC]

1. Enter the service mode,
2. Receive the 16-step gray scale computer signal with **Computer1 [RGB]** mode.
3. Select group no. "**100**" item no. "**7**" (Red) or "**8**" (Blue), and change Data values respectively to make a proper white balance.

Confirm that the same white balance is obtained in video and computer input.

9. 50% White adjustment [Video]

1. Enter the service mode.
2. Receive the 16-step grey scale composite video signal with **Video[Video]** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select group no. "**100**", item no. "**6**" and change data value to adjust amplitude "**a**" to be **1.6 ±0.1V**.



10. White Balance adjustment [Video]

1. Enter the service mode.
2. Receive the 16-step grey scale composite video signal with **Video[Video]** mode.
3. Select group no. "**100**" item no. "**7**" (Red) or "**8**" (Blue), and change Data values respectively to make a proper white balance.

Confirm that the same white balance is obtained in video and computer input.

11. Gamma Correction adjustment [PC]

This adjustment must use the service tool.
Adjust the gamma correction by using the proper computer and "PROJECTOR SERVICE TOOL" software supplied separately.

12. Gamma Correction adjustment [Video]

This adjustment must use the service tool.
Adjust the gamma correction by using the proper computer and "PROJECTOR SERVICE TOOL" software supplied separately.

13. Read/Write of LCD panel gamma data when Main Board replacing

The gamma adjustment data of each LCD panel has been adjusted preciously to much each LCD panel characteristics at factory.
When you replace the Main Board, you need to read out the gamma data stored in the memory IC on the previous board and write down the gamma data into the memory IC on the new board. By this way, the projector is enabled to reproduce the picture which has the properly adjusted gamma characteristic.

Use "PROJECTOR SERVICE TOOL" for Read / Write of the gamma data as follows;

Note On White Uniformity Adjustment

If you find the color shading on the screen, please adjust the white uniformity by using the proper computer and "PROJECTOR SERVICE TOOL" software supplied separately.

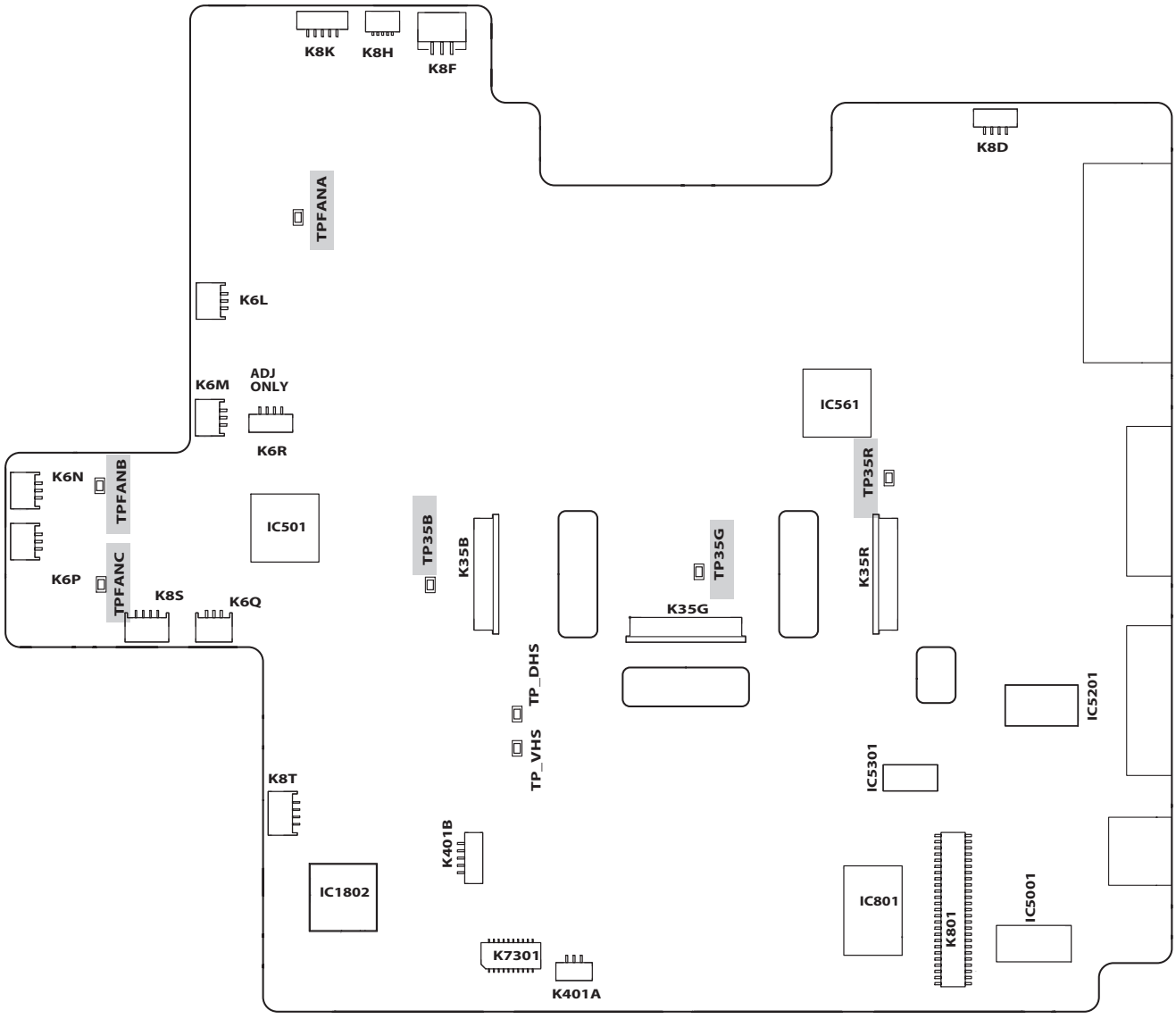
The software can be ordered as follows;

PROJECTOR SERVICE TOOL Ver. 4.10

Service Parts No. 610 337 8787

Test Points and Locations

MAIN BOARD



Service Adjustment Data Table

These initial values are the reference data written from the CPU ROM to memory IC when replaced new memory IC. The adjustment items indicated with "✻" are required to readjust following to the "Electrical adjustments". Other items should be used with the initial data value.

Group/ Item	Item Name	Function	Initial	Range	Note
Group 0	**AD Converter (PW190)**				
0	ADC G-OFFSET	PC / Component / SCART	128/120/128	0 - 255	* G-Pedestal Adjustment
1	ADC R-OFFSET	PC / Component / SCART	128/140/128	0 - 255	* R-Pedestal Adjustment
2	ADC B-OFFSET	PC / Component / SCART	128/140/128	0 - 255	* B-Pedestal Adjustment
3	ADC G-GAIN	PC / Component / SCART	50/50/50	0 - 255	* G-Gain Adjustmen
4	ADC R-GAIN	PC / Component / SCART	40/40/40	0 - 255	* R-Gain Adjustmen
5	ADC B-GAIN	PC / Component / SCART	40/40/40	0 - 255	* B-Gain Adjustmen
6	GRAAFLTR/RBAAFLTR	Green (Red and Blue) Anti-Alias Filter	4 / R / R	0 - 7	
7	GRNAADWNSMPL / RBAADWNSMPL	Green (Red and Blue) Anti-Alias Downsample	0 / R / R	0 - 3	Composite & S-Video / Component / PC
8	GRNAAHF / RBAAHF	Green (Red and Blue) Anti-Alias High Frequency	3 / R / R	0 - 3	*R: Read only value
10	SOGTH	PC / Component / SCART SyncOn Green Threhould	4 / 3 / 2	0 - 15	
11	SOGHYSDIS	PC / Component / SCART Sync On Green Hsysterisis Enable	0	0 - 1	
12	HS1TH		4	0 - 7	
13	HS0TH		4	0 - 7	
100	PreCoast PC Signal		3	0 - 63	
101	PostCoast PC Signal		8	0 - 63	
120	PreCoast PC Video 480i		7	0 - 63	
121	PostCoast PC Video 480i		13	0 - 63	
122	PreCoast PC Video 575i		7	0 - 63	
123	PostCoast PC Video 575i		13	0 - 63	
124	PreCoast PC Video 480p		7	0 - 63	
125	PostCoast PC Video 480p		13	0 - 63	
126	PreCoast PC Video 575p		7	0 - 63	
127	PostCoast PC Video 575p		13	0 - 63	
128	PreCoast PC Video 720p 60Hz		7	0 - 63	
129	PostCoast PC Video 720p 60Hz		13	0 - 63	
130	PreCoast PC Video 720p 50Hz		7	0 - 63	
131	PostCoast PC Video 720p 50Hz		13	0 - 63	
132	PreCoast PC Video 1080i 60Hz		7	0 - 63	
133	PostCoast PC Video 1080i 60Hz		13	0 - 63	
134	PreCoast PC Video 1080i 50Hz		7	0 - 63	
135	PostCoast PC Video 1080i 50Hz		13	0 - 63	
136	PreCoast PC Video 1035i		7	0 - 63	
137	PostCoast PC Video 1035i		13	0 - 63	
138	PreCoast PC Video 1080p 60Hz		7	0 - 63	
139	PostCoast PC Video 1080p 60Hz		13	0 - 63	
140	PreCoast PC Video 1080p 50Hz		7	0 - 63	
141	PostCoast PC Video 1080p 50Hz		13	0 - 63	
142	PreCoast PC Video 1080p 30Hz		7	0 - 63	
143	PostCoast PC Video 1080p 30Hz		13	0 - 63	
144	PreCoast PC Video 1080p 25Hz		7	0 - 63	
145	PostCoast PC Video 1080p 25Hz		13	0 - 63	
146	PreCoast PC Video 1080p 24Hz		7	0 - 63	
147	PostCoast PC Video 1080p 24Hz		13	0 - 63	
150	PreCoast YCbCr 480i		7	0 - 63	
151	PostCoast YCbCr 480i		13	0 - 63	
152	PreCoast YCbCr 575i		7	0 - 63	
153	PostCoast YCbCr 575i		13	0 - 63	
154	PreCoast YCbCr 480p		7	0 - 63	
155	PostCoast YCbCr 480p		13	0 - 63	
156	PreCoast YCbCr 575p		7	0 - 63	
157	PostCoast YCbCr 575p		13	0 - 63	
158	PreCoast YCbCr 720p 60Hz		7	0 - 63	
159	PostCoast YCbCr 720p 60Hz		13	0 - 63	
160	PreCoast YCbCr 720p 50Hz		7	0 - 63	
161	PostCoast YCbCr 720p 50Hz		13	0 - 63	

Group/ Item	Item Name	Function	Initial	Range	Note
162	PreCoast YCbCr 1080i 60Hz		7	0 - 63	
163	PostCoast YCbCr 1080i 60Hz		13	0 - 63	
164	PreCoast YCbCr 1080i 50Hz		7	0 - 63	
165	PostCoast YCbCr 1080i 50Hz		13	0 - 63	
166	PreCoast YCbCr 1035i		7	0 - 63	
167	PostCoast YCbCr 1035i		13	0 - 63	
180	PreCoast SCART 480i		7	0 - 63	
181	PostCoast SCART 480i		13	0 - 63	
182	PreCoast SCART 575i		7	0 - 63	
183	PostCoast SCART 575i		13	0 - 63	
Group 10	**Sync Processor**				
0	SYNCAMPHLCKTOLOW	Minimum sync amplitude threshold for HLCK 1 to 0 tansition	0x1000	0 - 9999	
1	SYNCAMPHLCKTOHI	Minimum sync amplitude threshold for HLCK 0 to 1 tansition	0x700	0 - 9999	
Group 20	**Video Decoder** *R : Read Only Value				
0	Y Level	Composite / S-Video - Y Level (ADC RGB Gain)	10 / 10	0 - 255	Composite / S-Video * Gain Adjustment [Video]
1	C Level	Composite / S-Video - C Level (ADC Saturation)	115 / 115	0 - 255	Composite / S-Video
2					
3	XCXL Level	Cross-Chroma, Cross-Luma Level	3	0 - 5	
4	C2DNBANDWIDTH	Comb 2D Narrow Bandwidth	3 / 3	0 - 3	NTSC/PAL
5	C2DWBANDWIDTH	Comb 2D Wide Bandwidth	4 / 4	0 - 7	NTSC/PAL
6	C2DCNMINLEAK	Comb 2D Chroma Narrow Band Minimum Leakage	0 / 3	0 - 3	Left Values are adjustable if CXCL Level = 5.
7	C2DCNSLOPELEAK	Comb 2D Narrow Band Slope Leakage	7 / 7	0 - 7	NTSC/PAL
8	C2DCWMINLEAK	Comb 2D Wide Band Minimum Leakage	1 / 3	0 - 3	NTSC/PAL
9	C2DCWSLOPELEAK	Comb 2D CW Slope Leakage	6 / 6	0 - 7	NTSC/PAL
10	COMBLEAK2BPGAIN	Comb Leak To Ban Pass Gain	1 / 0	0 - 3	NTSC/PAL
11	C2DBDIAGONALGAIN	Comb 2D Band Pass Diagonal Gain	1 / 3	0 - 3	NTSC/PAL
12	C2DNBCWBCLGAIN	Comb 2D Narrow Band Comb Wide Band Comb	1 / 1	0 - 3	NTSC/PAL
13	RLUMASETUP-Enable	7.5IRE Setup Enable	0	0 - 1	Effective only NTSC Signal
Group 40	**General**				
0	IP Mode	Sets for IP Off	1	0 - 1	0: IP Block not used 1: IP OFF used with IP Block
1	3:2 PullDown Mode		1	1 - 3	bit0 : Global Motion bit1 : Video Motion
2	Detect Film Mode Enable		0	0 - 2	0 : 2:3pull down & 2:2pull down 1 : 2:3pull down 2 : 2:2pull down
3	Force IP Mode		2	0 - 2	0 : IP Process Disable 1 : Force Normal IP Mode 2 : Force Film Mode Effective only for PSF Signal.
Group 41	**Deinterlacer setting** Effective only for Progressive ON-L1 mode.				
0	Motion Adaptive Weight Value	<KDEINT>	60	0 - 255	
1	Angle Interpolation Level	0 : Conservative <====> 4 : Aggressive	4	0 - 4	
2	CUE Low Pass Filter Enable	<CUELPFEN>	0	0 - 1	
Group 42	**Deinterlacer setting** Effective only for Progressive ON-L2 mode.				
0	Motion Adaptive Weight Value	<KDEINT>	0	0 - 255	
1	Angle Interpolation Level	0 : Conservative <====> 4 : Aggressive	2	0 - 4	
2	CUE Low Pass Filter Enable	<CUELPFEN>	0	0 - 1	
Group 43	**Deinterlacer setting** Effective only for Progressive ON/Film mode.				
0	Motion Adaptive Weight Value	<KDEINT>	30	0 - 255	
1	Angle Interpolation Level	0 : Conservative <====> 4 : Aggressive	4	0 - 4	
2	CUE Low Pass Filter Enable	<CUELPFEN>	0	0 - 1	
Group 45	**Noise Reduction (Time)** Effective only for N.R - Off				
0	Noise Pixel Range	<NSRANGEY> / <NSRANGEUV>	1	0 - 2	
1	Noise Region 0	<NSREGIONY0> / <NSREGIONUV0>	12	0 - 1023	
2	Noise Region 1	<NSREGIONY1> / <NSREGIONUV1>	24	0 - 1023	

Group/ Item	Item Name	Function	Initial	Range	Note
3	Noise Region 2	<NSREGIONY2> / <NSREGIONUV2>	40	0 - 1023	
4	Noise Gain Level	<NSFILTERY**> / <NSFILTERUV**>	0	0 - 255	
Group 47	**Noise Reduction (Time)** Effective only for N.R L1				
0	Noise Pixel Range	<NSRANGEY> / <NSRANGEUV>	1	0 - 2	
1	Noise Region 0	<NSREGIONY0> / <NSREGIONUV0>	12	0 - 1023	
2	Noise Region 1	<NSREGIONY1> / <NSREGIONUV1>	24	0 - 1023	
3	Noise Region 2	<NSREGIONY2> / <NSREGIONUV2>	40	0 - 1023	
4	Noise Gain Level	<NSFILTERY**> / <NSFILTERUV**>	50	0 - 255	
Group 49	**Noise Reduction (Time)** Effective only for N.R L2				
0	Noise Pixel Range	<NSRANGEY> / <NSRANGEUV>	1	0 - 2	
1	Noise Region 0	<NSREGIONY0> / <NSREGIONUV0>	12	0 - 1023	
2	Noise Region 1	<NSREGIONY1> / <NSREGIONUV1>	24	0 - 1023	
3	Noise Region 2	<NSREGIONY2> / <NSREGIONUV2>	40	0 - 1023	
4	Noise Gain Level	<NSFILTERY**> / <NSFILTERUV**>	100	0 - 255	
Group 50	**2:2pull down setting**				
0	22Film Mode Sensitivity	Film Detection Sensitivity <FILMSTVT22>	4	1 - 5	
1	22Film Mode Threshold Low	<FILMTHRD22A>	80	0 - 32767	
2	22Film Mode Threshold High	<FILMTHRD22B>	120	0 - 32767	
3	VOFTHR13	<VOFTHR13>	124	0 - 1023	Read only
4	VOFTHR12	<VOFTHR12>	124	0 - 1023	Read only
5	VOFTHR23	<VOFTHR23>	124	0 - 1023	Read only
6	Video Motion Window Start X	<VOFSTARX>	10	0 - 2047	Range of detective for Film mode
7	Video Motion Window Stop X	<VOFSTOPX>	10	0 - 2047	Range of detective for Film mode
8	Video Motion Window Start Y	<VOFSTARY>	10	0 - 1023	Range of detective for Film mode
9	Video Motion Window Stop Y	<VOFSTOPY>	10	0 - 1023	Range of detective for Film mode
Group 51	**2:3pull down setting**				
0	Global Motion Sensitivity	Film Detection Sensitivity <FILMSTVT23>	4	1 - 5	
1	Video Motion Sensitivity	Film Detection Sensitivity <VOFSTVT>	4	1 - 5	
2	Video Motion Threshold Low	<VOFTHRDA>	120	0 - 32767	
3	Video Motion Threshold High	<VOFTHRDB>	180	0 - 32767	
4	Global Motion Threshold	<GMDTHRD>	124	0 - 1023	Read only
5	23Film Mode Threshold	<FILMTHRD23>	100	0 - 32767	
6	Global Motion Window Start X	<GMDSTARX>	10	0 - 2047	Range of detective for Film mode
7	Global Motion Window Stop X	<GMDSTOPX>	10	0 - 2047	Range of detective for Film mode
8	Global Motion Window Start Y	<GMDSTARY>	10	0 - 1023	Range of detective for Film mode
9	Global Motion Window Stop Y	<GMDSTOPY>	10	0 - 1023	Range of detective for Film mode
Group 60	**Image**				
0	Center Contrast		534/596/534/534/492/492	0 - 1023	Video(S-Video) / Component / SCART / ANALOG / DIGITAL / HDCP Setting Value= (MENU Value - MENU Center Value) x Alpha / 10 + Center [Setting Value to PW] Contrast [Max] 1023 [Min] 0 Brightness [Max] 1023 [Min] 0 Color [Max] 1023 [Min] 0 Tint [Max] 180 [Min] 0 Sharpness [Max] 57 [Min] 0
1	Center Brightness		512/468/512/500/512/512	0 - 1023	
2	Center Color		512/512/512/512/512/512	0 - 1023	
3	Center Tint		90/90/90/90/90/90	0-180	
4	Center Sharpness		16/16/16/16/16/16	16	
5	Alpha Contrast		40/40/40/40/40/40	0-1000	
6	Alpha Brightness		140/140/140/140/140/140	0-1000	
7	Alpha Color		70/70/70/70/70/70	0-1000	
8	Alpha Tint		10/10/10/10/10/10	0-1000	
9	Alpha Sharpness		10/10/10/10/10/10	0-1000	
Group 100	**Panel Service**				
0	G-SubGain		2048/2096/1860/1860/1860/2048/2096/ 1860/1860/1860	0-4095	PCStandard/PCDynamic/PCReal/PC-ColorBoard/PCBlackBoard/AVStandard/AVDynamic/AVCinema/AVcolorBoard/AVBlackBoard Center=2048
1	R-SubGain		2048/2096/1860/1860/2140/2048/2096/ 1860/1860/2140	0-4095	PCStandard/PCDynamic/PCReal/PC-ColorBoard/PCBlackBoard/AVStandard/AVDynamic/AVCinema/AVcolorBoard/AVBlackBoard Center=2048

Group/ Item	Item Name	Function	Initial	Range	Note
2	B-SubGain		2048/2096/1860/1860/1860/2048/2096/ 1860/1860/1860	0-4095	PCStandard/PCDynamic/PCReal/PC-ColorBoard/PCBlackBoard/AVStandard/ AVDynamic/AVCinema/AVcolorBoard/ AVBlackBoard
3	G-SubBright		2048/2048/2088/2088/2088/2048/2048/ 2088/2088/2088	0-4095	PCStandard/PCDynamic/PCReal/PC-ColorBoard/PCBlackBoard/AVStandard/ AVDynamic/AVCinema/AVcolorBoard/ AVBlackBoard
4	R-SubBright		2048/2048/2088/2088/2088/2048/2048/ 2088/2088/2088	0-4095	PCStandard/PCDynamic/PCReal/PC-ColorBoard/PCBlackBoard/AVStandard/ AVDynamic/AVCinema/AVcolorBoard/ AVBlackBoard
5	B-SubBright		2048/2048/2088/2088/2088/2048/2048/ 2088/2088/2088	0-4095	PCStandard/PCDynamic/PCReal/PC-ColorBoard/PCBlackBoard/AVStandard/ AVDynamic/AVCinema/AVcolorBoard/ AVBlackBoard
6	G-GammaShift		2048/2048	0-4095	PC/AV Center=512 R] and [B] are linked with [G]
7	R-GammaShift		2048/2048	0-4095	PC/AV Center=512 R] and [B] are linked with [G]
8	B-GammaShift		2048/2048	0-4095	PC/AV Center=512 R] and [B] are linked with [G]
9	G-ReferH		4095/4095	0-4095	[R] and [B] are linked with [G] Scan Direction (Front/Rear)
10	G-ReferL		1200/1200	0-4095	[R] and [B] are linked with [G] Scan Direction (Front/Rear)
11	R-ReferH		4095/4095	0-4095	Scan Direction (Front/Rear)
12	R-ReferL		1200/1200	0-4095	Scan Direction (Front/Rear)
13	B-ReferH		4095/4095	0-4095	Scan Direction (Front/Rear)
14	B-ReferL		1200/1200	0-4095	Scan Direction (Front/Rear)
15	DXOutR		270	0-1023	
16	DXOutG		270	0-1023	
17	DXOutB		270	0-1023	
18	H_Change_Pos		34	0-256	
19	SH_Base		1092	0-4095	
20	NRG_Pos		43	0-128	
21	NRG_Width		43	0-255	
22	OSD_Pos		2	0-3	
23	OSD_Ptn		0	0-7	
24	GammaCtrl		3	0-3	
25	REF_GatePos		11	0-1023	
26	REF_GateDur		144	0-1023	
27	R-BasePos		5	0-15	
28	G-BasePos		5	0-15	
29	B-BasePos		5	0-15	
30	RGB-Adjust		0	0-7	
31	RGB-AdjLv		0	0-4095	Operation STEP=512[0<->512<->1024 <->1536<->2048<->2560<->3072<->3584<->4095]
32	LineR0		0	0-1023	(MIN<-->MAX Cyclic Operation)
33	LineR1		0	0-1023	(MIN<-->MAX Cyclic Operation)
34	LineR2		0	0-1023	(MIN<-->MAX Cyclic Operation)
35	LineR3		0	0-1023	(MIN<-->MAX Cyclic Operation)
36	LineR4		0	0-1023	(MIN<-->MAX Cyclic Operation)
37	LineG0		0	0-1023	(MIN<-->MAX Cyclic Operation)
38	LineG1		0	0-1023	(MIN<-->MAX Cyclic Operation)
39	LineG2		0	0-1023	(MIN<-->MAX Cyclic Operation)
40	LineG3		0	0-1023	(MIN<-->MAX Cyclic Operation)
41	LineG4		0	0-1023	(MIN<-->MAX Cyclic Operation)
42	LineB0		0	0-1023	(MIN<-->MAX Cyclic Operation)
43	LineB1		0	0-1023	(MIN<-->MAX Cyclic Operation)
44	LineB2		0	0-1023	(MIN<-->MAX Cyclic Operation)
45	LineB3		0	0-1023	(MIN<-->MAX Cyclic Operation)
46	LineB4		0	0-1023	(MIN<-->MAX Cyclic Operation)
47	GhostR-Pos		5	0-31	
48	GhostG-Pos		5	0-31	
49	GhostB-Pos		5	0-31	
50	GhostR-Cent		0	0-2047	(MIN<-->MAX Cyclic Operation)
51	GhostR-Start		128	0-255	
52	GhostR-End		128	0-255	
53	GhostG-Cent		0	0-2047	(MIN<-->MAX Cyclic Operation)
54	GhostG-Start		128	0-255	
55	GhostG-End		128	0-255	

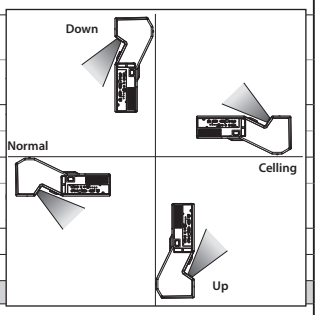
Group/ Item	Item Name	Function	Initial	Range	Note
56	GhostB-Cent		0	0-2047	(MIN<-->MAX Cyclic Operation)
57	GhostB-Start		128	0-255	
58	GhostB-End		128	0-255	
59	BlockR1		0	0-2047	(MIN<-->MAX Cyclic Operation)
60	BlockG1		0	0-2047	(MIN<-->MAX Cyclic Operation)
61	BlockB1		0	0-2047	(MIN<-->MAX Cyclic Operation)
62	BlockR2		0	0-2047	(MIN<-->MAX Cyclic Operation)
63	BlockG2		0	0-2047	(MIN<-->MAX Cyclic Operation)
64	BlockB2		0	0-2047	(MIN<-->MAX Cyclic Operation)
65	ReverceR		0	0-2047	(MIN<-->MAX Cyclic Operation)
66	ReverceG		0	0-2047	(MIN<-->MAX Cyclic Operation)
67	ReverceB		0	0-2047	(MIN<-->MAX Cyclic Operation)
68	BackCrossR-Cent		0	0-2047	(MIN<-->MAX Cyclic Operation)
69	BackCrossR-Start		128	0-255	
70	BackCrossR-End		128	0-255	
71	BackCrossG-Cent		0	0-2047	(MIN<-->MAX Cyclic Operation)
72	BackCrossG-Start		128	0-255	
73	BackCrossG-End		128	0-255	
74	BackCrossBR-Cent		0	0-2047	(MIN<-->MAX Cyclic Operation)
75	BackCrossB-Start		128	0-255	
76	BackCrossB-End		128	0-255	
77	ColshdSelect		1	0-1	
78	R-Min		320	0-1023	
79	R-Mid2		508	0-1023	
80	R-Mid1		611	0-1023	
81	R-Max		703	0-1023	
82	G-Min		320	0-1023	
83	G-Mid2		508	0-1023	
84	G-Mid1		611	0-1023	
85	G-Max		703	0-1023	
86	B-Min		320	0-1023	
87	B-Mid2		508	0-1023	
88	B-Mid1		611	0-1023	
89	B-Max		703	0-1023	
90	H-OutPos		123	0-2047	
91	OutAreaLv		0	0-4095	
92	FlickerAdj		0	0/2	
93	FRC_Bit		3	0-3	
94	FrontCTalkR-Cent		0	0-2047	(MIN<-->MAX Cyclic Operation)
95	FrontCTalkR-Start		128	0-255	
96	FrontCTalkR-End		128	0-255	
97	FrontCTalkG-Cent		0	0-2047	(MIN<-->MAX Cyclic Operation)
98	FrontCTalkG-Start		128	0-255	
99	FrontCTalkG-End		128	0-255	
100	FrontCTalkB-Cent		0	0-2047	(MIN<-->MAX Cyclic Operation)
101	FrontCTalkB-Start		128	0-255	
102	FrontCTalkB-End		128	0-255	
103	R-DCOffset-NGain		0/0	0-1023	(MIN<-->MAX Cyclic Operation)
104	R-DCOffset-N1		2047 / 2047	0-2047	(MIN<-->MAX Cyclic Operation)
105	R-DCOffset-N2		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
106	R-DCOffset-N3		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
107	R-DCOffset-N4		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
108	R-DCOffset-N5		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
109	R-DCOffset-N6		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
110	R-DCOffset-N7		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
111	R-DCOffset-N8		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
112	R-DCOffset-N9		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
113	R-DCOffset-N10		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
114	R-DCOffset-N11		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
115	R-DCOffset-N12		1980 / 1980	0-2047	(MIN<-->MAX Cyclic Operation)
116	G-DCOffset-NGain		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
117	G-DCOffset-N1		2044 / 2044	0-2047	(MIN<-->MAX Cyclic Operation)
118	G-DCOffset-N2		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
119	G-DCOffset-N3		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
120	G-DCOffset-N4		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
121	G-DCOffset-N5		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
122	G-DCOffset-N6		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
123	G-DCOffset-N7		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
124	G-DCOffset-N8		0/0	0-2047	(MIN<-->MAX Cyclic Operation)

Group/ Item	Item Name	Function	Initial	Range	Note
125	G-DCOffset-N9		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
126	G-DCOffset-N10		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
127	G-DCOffset-N11		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
128	G-DCOffset-N12		1980 / 1980	0-2047	(MIN<-->MAX Cyclic Operation)
129	B-DCOffset-NGain		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
130	B-DCOffset-N1		2044 / 2044	0-2047	(MIN<-->MAX Cyclic Operation)
131	B-DCOffset-N2		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
132	B-DCOffset-N3		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
133	B-DCOffset-N4		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
134	B-DCOffset-N5		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
135	B-DCOffset-N6		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
136	B-DCOffset-N7		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
137	B-DCOffset-N8		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
138	B-DCOffset-N9		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
139	B-DCOffset-N10		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
140	B-DCOffset-N11		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
141	B-DCOffset-N12		1980 / 1980	0-2047	(MIN<-->MAX Cyclic Operation)
142	R-DCOffset-PGain		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
143	R-DCOffset-P1		16/16	0-2047	(MIN<-->MAX Cyclic Operation)
144	R-DCOffset-P2		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
145	R-DCOffset-P3		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
146	R-DCOffset-P4		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
147	R-DCOffset-P5		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
148	R-DCOffset-P6		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
149	R-DCOffset-P7		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
150	R-DCOffset-P8		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
151	R-DCOffset-P9		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
152	R-DCOffset-P10		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
153	R-DCOffset-P11		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
154	R-DCOffset-P12		88/88	0-2047	(MIN<-->MAX Cyclic Operation)
155	G-DCOffset-PGain		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
156	G-DCOffset-P1		16/16	0-2047	(MIN<-->MAX Cyclic Operation)
157	G-DCOffset-P2		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
158	G-DCOffset-P3		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
159	G-DCOffset-P4		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
160	G-DCOffset-P5		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
161	G-DCOffset-P6		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
162	G-DCOffset-P7		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
163	G-DCOffset-P8		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
164	G-DCOffset-P9		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
165	G-DCOffset-P10		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
166	G-DCOffset-P11		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
167	G-DCOffset-P12		88/88	0-2047	(MIN<-->MAX Cyclic Operation)
168	B-DCOffset-PGain		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
169	B-DCOffset-P1		16/16	0-2047	(MIN<-->MAX Cyclic Operation)
170	B-DCOffset-P2		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
171	B-DCOffset-P3		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
172	B-DCOffset-P4		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
173	B-DCOffset-P5		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
174	B-DCOffset-P6		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
175	B-DCOffset-P7		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
176	B-DCOffset-P8		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
177	B-DCOffset-P9		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
178	B-DCOffset-P10		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
179	B-DCOffset-P11		0/0	0-2047	(MIN<-->MAX Cyclic Operation)
180	B-DCOffset-P12		88/88	0-2047	(MIN<-->MAX Cyclic Operation)
181	ENBX-R		0	0-127	
182	ENBX-G		0	0-127	
183	ENBX-B		0	0-127	
184	DXOutPos		0	0-1	
185	R_V_INPUT_STEP_0		20	0-1023	(MIN<-->MAX Cyclic Operation)
186	R_V_INPUT_STEP_512		16	0-1023	(MIN<-->MAX Cyclic Operation)
187	R_V_INPUT_STEP_1024		13	0-1023	(MIN<-->MAX Cyclic Operation)
188	R_V_INPUT_STEP_1536		8	0-1023	(MIN<-->MAX Cyclic Operation)
189	R_V_INPUT_STEP_2048		4	0-1023	(MIN<-->MAX Cyclic Operation)
190	R_V_INPUT_STEP_2560		1	0-1023	(MIN<-->MAX Cyclic Operation)
191	R_V_INPUT_STEP_3072		1022	0-1023	(MIN<-->MAX Cyclic Operation)
192	R_V_INPUT_STEP_3584		1018	0-1023	(MIN<-->MAX Cyclic Operation)
193	R_V_INPUT_STEP_4096		1015	0-1023	(MIN<-->MAX Cyclic Operation)

Group/ Item	Item Name	Function	Initial	Range	Note
194	G_V_INPUT_STEP_0		20	0-1023	(MIN<-->MAX Cyclic Operation)
195	G_V_INPUT_STEP_512		16	0-1023	(MIN<-->MAX Cyclic Operation)
196	G_V_INPUT_STEP_1024		13	0-1023	(MIN<-->MAX Cyclic Operation)
197	G_V_INPUT_STEP_1536		8	0-1023	(MIN<-->MAX Cyclic Operation)
198	G_V_INPUT_STEP_2048		4	0-1023	(MIN<-->MAX Cyclic Operation)
199	G_V_INPUT_STEP_2560		1	0-1023	(MIN<-->MAX Cyclic Operation)
200	G_V_INPUT_STEP_3072		1022	0-1023	(MIN<-->MAX Cyclic Operation)
201	G_V_INPUT_STEP_3584		1018	0-1023	(MIN<-->MAX Cyclic Operation)
202	G_V_INPUT_STEP_4096		1015	0-1023	(MIN<-->MAX Cyclic Operation)
203	B_V_INPUT_STEP_0		20	0-1023	(MIN<-->MAX Cyclic Operation)
204	G_V_INPUT_STEP_512		16	0-1023	(MIN<-->MAX Cyclic Operation)
205	G_V_INPUT_STEP_1024		13	0-1023	(MIN<-->MAX Cyclic Operation)
206	G_V_INPUT_STEP_1536		8	0-1023	(MIN<-->MAX Cyclic Operation)
207	G_V_INPUT_STEP_2048		4	0-1023	(MIN<-->MAX Cyclic Operation)
208	G_V_INPUT_STEP_2560		1	0-1023	(MIN<-->MAX Cyclic Operation)
209	G_V_INPUT_STEP_3072		1022	0-1023	(MIN<-->MAX Cyclic Operation)
210	G_V_INPUT_STEP_3584		1018	0-1023	(MIN<-->MAX Cyclic Operation)
211	G_V_INPUT_STEP_4096		1015	0-1023	(MIN<-->MAX Cyclic Operation)
212	FRPPOL		84	0-4095	
213	FRP_POS		34	0-255	
214	SWAP		1285	0-2047	
215	PRE_COLSHD_SEL		0	0-255	
216	HSYNC_FOLLOW		1	0-1	
217	DELAY_HSYNC		30	0-2047	
218	DELAY_VSYNC		16	0-255	
219	VSYNC_FOLLOW		0	0-1	
220	BLANK_RCENTER		0	0-2047	(MIN<-->MAX Cyclic Operation)
221	BLANK_RSTART		128	0-255	
222	BLANK_REND		128	0-255	
223	BLANK_GCENTER		0	0-2047	(MIN<-->MAX Cyclic Operation)
224	BLANK_GSTART		128	0-255	
225	BLANK_GEND		128	0-255	
226	BLANK_BCENTER		0	0-2047	(MIN<-->MAX Cyclic Operation)
227	BLANK_BSTART		128	0-255	
228	BLANK_BEND		128	0-255	
229	DATA LIMIT MAX R		4095	0-4095	
230	DATA LIMIT MAX G		4095	0-4095	
231	DATA LIMIT MAX B		4095	0-4095	
Group101 : Panel Service(6150/1060)					
0	R-LCCOM		330	0-511	
1	G-LCCOM		330	0-511	
2	B-LCCOM		330	0-511	
3	R-LCCOM-Gain		191	0-255	
4	G-LCCOM-Gain		191	0-255	
5	B-LCCOM-Gain		191	0-255	
6	R-LCCOM-Bright		0	0-255	
7	G-LCCOM-Bright		0	0-255	
8	B-LCCOM-Bright		0	0-255	
9	R-LCCOM-Cent		18	0-63	
10	G-LCCOM-Cent		18	0-63	
11	B-LCCOM-Cent		18	0-63	
12	R-ENBX-PW		11	0-127	
13	G-ENBX-PW		11	0-127	
14	B-ENBX-PW		11	0-127	
15	R-DXIN		3	0-255	Link with No.18
16	G-DXIN		3	0-255	Link with No.19
17	B-DXIN		3	0-255	Link with No.20
18	R-CLXIN		3	0-255	Link with No.15
19	G-CLXIN		3	0-255	Link with No.16
20	B-CLXIN		3	0-255	Link with No.17
21	R-ENBX1IN		17	0-255	
22	G-ENBX1IN		17	0-255	
23	B-ENBX1IN		17	0-255	
Group 200	**Option**				
0	Logo Prohibition (Forced No Brand)	Logo Prohibition (0: Menu, 1: Forced, 2: China, 3-9: not used)	0	0 - 2	Effective after AC On
1	RS232C Baudrate	Baud Rate	0	0 - 2	0: 19200bps, 1: 9600bps, 2: 115200bps

Group/ Item	Item Name	Function	Initial	Range	Note
2	PJLink Enable	PJLink	0	0 - 1	0: Disable 1: Enable
3	Shipping Setting		0	0 - 20	Default set when the value is set to 10
4	CABLE SW	Long Cable	0	0 - 1	0: Disable, 1: Enable
5	PW Debug Command Enable		0	0 - 1	0:Disable (Serial Command Eanble) 1: Enable (PW Debug Mode)
6	Device Refresh Disable		0	0 - 1	0:Enable, 1:Disable No last memory
7	Device Access Disable		0	0 - 1	0:Enable (Normal), 1:Disable No last memory
20	Projector Time Reset		0	0 - 20	Projector Time is cleared when the value is set to 10
21	Lamp Warning Time (NORMAL)	Lamp Life at Normal Mode (Warning Time at Normal)		500 - 8000	
22	Lamp Warning Time (ECO)	Lamp Life at Eco Mode (Warning Time at Eco)		500 - 8000	
30	Lamp life test enable				0:Disable 1:Enable, for safety test only
31	Lmap On time(for life test)	For test purpose			
32	Lamp Off time(for life test)	For test purpose			
33	Lamp total time(for life test)	For test purpose			
50	Lamp Replacement Display	Lamp Warning Display On / Off	1	0 - 1	1: On, 0: Off
51	Filter Warning Display	Filter Warning Display On / Off	1	0 - 1	1: On, 0: Off
52	Lamp Counter reset Times	Reset Times of Lamp Counter	0	0 - 255	Read only
53	Filter Counter Reset Time	Reset Times of Filter Counter	0	0 - 255	Read only
54	Factory Default Execute Times	Reset times of Fanctory Default	0	0 - 255	Read only
55	Motor Disable	Motors Disable	0	0 - 1	0: On, 1: Off
56	Menu Position	Move menu (X asis)	0	0 - 1024	
57	Menu Position	Move menu (Y asis)	0	0 - 1024	
58	Lamp Go Out		n/a	0 - 1	
59	Source Search Enable	Source Search	0	0 - 1	0:Disable 1: Enable
70	RC Mode	Setting RC Mode	0	0 - 1	0: Normal RC Mode 1: Promethean RC Mpde
71	Force Model Option	Model Option Force Setting	0	0 - 2	0: Normal 1: Force for XE50 2: Force for XL50
80	Panel life test mode	Setting panel life test mode	1	0 - 1	0: Life test mode 1: Normal
Group 201	**Option (signal)**				
0	FrameLock Option		1	0 - 1	0: FrameLockOFF at PC signal 1: FrameLockON at PC signal and 47Hz (Vfreq) ~ Panel frequency of input signal
2	Field Sense Invert Enable		0	0 - 1	Reverse Processing of FLDINVSetting Value 0: Disable - Used FLDINV Setting Value 1: Enable - Used Reversed FLDINV Setting Value
3					
4	Sub Image Enable		1	0 - 1	0:Disable (Service Adjustment Dsiable, Used all the Center Values 1:Enable (Service Adjustment Enable)
6	Zoom Accelerator Enable		0	0 - 1	0:Zoom Accelerator OFF, 1:Zoom Accelerator ON No last memory
7	DZoom Reset by Keystone		0	0 - 1	0:Enable (Normal), 1:Disable (Dzoo is not cancelled even if Keystone is cancelled) No last memory
8	Stability Count	Count Value of V-missing	5	0 - 255	
9	Sensivity for Signal Lost (HSYNC)	Only used this value for No Signal Judgement(Hz)	350	0 - 32757	
10	Sensivity for Signal Lost (VSYNC)	Only used this value for No Signal Judgement(Line)	3	0 - 255	
11	Keystone Filter Center Value	Reference Value	16	0 - 30	
Group 203	**Option (XE50 FPGA)**				
0	FPGA Version	FPGA Version Display			Read only
1	ON / OFF	Yniformity Adjustment Setting ON/OFF	1	0 - 1	0 : OFF 1: ON
2	MODE	Table No. of FPGA	0	0 - 3	0 : TBL0, 1: TBL1 2: TBL2
3	SEL	Uniformity adjustment Method Setting	1	0 - 1	0: Output = Input x (kH+kV) /2 1: Output = Input x (kH+kV)
4	HANTEN	Adrres Reverse Setting	0	0 - 3	0 : Normal 1 : R/L reverse 2: U/D reverse 3: R/L/U/D reverse
5	Red Gain	Red Gain Setting	128/92/128/92/128	0 - 255	Normal/Red/Blue/Yellow/Green

Group/ Item	Item Name	Function	Initial	Range	Note
6	Green Gain	Green Gain Setting	128/120/120/94/118	0 - 255	Normal/Red/Blue/Yellow/Green
7	Blue Gain	Blue Gain Setting	128/128/106/128/128	0 - 255	Normal/Red/Blue/Yellow/Green
8	Table	Uniformity adjustment table setting	0	0 - 7	
Group 205	**Spread Spectrum**				
0	Enable	Spread ON/OFF	1	0 - 1	0 : ON 1 : OFF
1	Modulation Frequency	Modulation ratio	80	1 - 500	x 100Hz
2	Spread ratio		100	0 -300	(Set value 100 ---> 0.5%)
Group 210	**LampContorl**				
0	DIMMER_CTRL_LEVEL1	Luminance Level 1 Data for Dimmer: Dim Level 1 at the less than the Value	7	0 - 255	
1	DIMMER_CTRL_LEVEL2	Luminance Level 2 Data for Dimmer: Dim Level 2 at the less than the Value	14	0 - 255	
2	DIMMER_CTRL_LEVEL3	Luminance Level 3 Data for Dimmer: Dim Level 3 at the less than the Value	21	0 - 255	
3	DIMMER_CTRL_LEVEL4	Luminance Level 4 Data for Dimmer: Dim Level 4 at the less than the Value	28	0 - 255	
4	DIMMER_CTRL_LEVEL5	Luminance Level 5 Data for Dimmer: Dim Level 5 at the less than the Value	35	0 - 255	
5	DIMMER_CTRL_LEVEL6	Luminance Level 6 Data for Dimmer: Dim Level 6 at the less than the Value	42	0 - 255	
6	DIMMER_CTRL_LEVEL7	Luminance Level 7 Data for Dimmer: Dim Level 7 at the less than the Value	49	0 - 255	
7	DIMMER_CTRL_LEVEL8	Luminance Level 8 Data for Dimmer: Dim Level 8 at the less than the Value	56	0 - 255	
8	DIMMER_CTRL_LEVEL9	Luminance Level 9 Data for Dimmer: Dim Level 9 at the less than the Value	63	0 - 255	
9	DIMMER_CTRL_LEVEL10	Luminance Level 10 Data for Dimmer: Dim Level 10 at the less than the Value	70	0 - 255	
10	DIMMER_CTRL_LEVEL11	Luminance Level 11 Data for Dimmer: Dim Level 11 at the less than the Value	77	0 - 255	
11	DIMMER_CTRL_LEVEL12	Luminance Level 12 Data for Dimmer: Dim Level 12 at the less than the Value	84	0 - 255	
12	DIMMER_CTRL_LEVEL13	Luminance Level 13 Data for Dimmer: Dim Level 13 at the less than the Value	91	0 - 255	
13	DIMMER_CTRL_LEVEL14	Luminance Level 14 Data for Dimmer: Dim Level 14 at the less than the Value	98	0 - 255	
14	DIMMER_CTRL_LEVEL15	Luminance Level 15 Data for Dimmer: Dim Level 15 at the less than the Value	105	0 - 255	
15	DIMMER_AVERAGE_POINT	Luminance Data Avarage Point for Mimmer	4	0 - 16	
16	DIMMER_AVERAGE_DATA	Luminance Data Avarage Value for Dimmer	-	-	
17	DIMMER_LEVEL_AUTO	Current Dimmer Leverl	-	-	
18	DIMMER_LEVEL_NORMAL	High Dimmer Level	15	0 - 15	
19	DIMMER_LEVEL_ECO	Normal Dimmer Level	0	0 - 15	
20	Lamp check enable		1	0 - 1	
21	VOLTAGE_LEVEL	Lamp Voltage	-		
Group 220	**Projector Warning Histry**				
0	Warning_Log_1	Last error log	0	0 - 32767	
~	:		:	:	
49	Warning_Log_50	50th error log	0	0 - 32767	
50	Warning_Log_Reset	Log is reset when the value is set to 10.	0	0 - 10	



Group/ Item	Item Name	Function	Initial	Range	Note
Group 250	**FAN Cntorol**				
0	FAN1 MIN ADJUST (DAC)	DAC Output for Fan Adjust the tolerance of DAC and Fan Volage. * Lamp mode is forced Eco	45	0 - 255	
1	FAN1 MAX ADJUST (DAC)		235	0 - 255	
2	FAN2 MIN ADJUST (DAC)		45	0 - 255	
3	FAN2 MAX ADJUST (DAC)		235	0 - 255	
4	FAN3 MIN ADJUST (DAC)		45	0 - 255	
5	FAN3 MAX ADJUST (DAC)		235	0 - 255	
6	Not used				
7	Not used				
Group 251					
	Not used				
Group 252	**Fan Option**				
0	HI-LAND SWITCH	0: Normal, 1: Hi-Land, 2-4: Hi-Land 1-3	0	0 - 5	
1	SAFETY SWITCH	For test purpose	0	0 - 6	
2	FAN MANUAL SWITCH	0: Auto, 1: Manual	0	0 - 3	
3	FAN1 MANUAL VOLTAGE	Fan Voltage (unit : 0.1V) Effective only when Fan Maual switch is 1	100	0 - 255	
4	FAN2 MANUAL VOLTAGE		100	0 - 255	
5	FAN3 MANUAL VOLTAGE		100	0 - 255	
6	Not used				
7	Stand Mode	Stand mode setting 0: Normal(Free) 1: Normal(Fixed) 2: Celling 3: Down 4: Up	0	0 - 4	
8	Fan Offset Voltage Update Interval	filter clogged Fan Voltage Update interval time (sec.)	60	1 - 600	

Group 253	Fan Tem Error Setting (Memorized)		Normal	Ceiling	Down	Up		
0	Not used							
1	Not used							
2	Not used							
3	Not used							
4	Not used							
5	Temp A Warning (Normal)	Temp. A to judge the Temp Error at Normal (Room)	42 32	42 32	42 32	42 32	30-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
6	Temp B Warning (Normal)	Temp. B to judge the Temp Error at Normal (Panel)	54 57	54 57	54 57	54 57	30-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
7	Temp C Warning (Normal)	Temp. C to judge the Temp Error at Normal (Lamp)	75 78	75 78	75 78	75 78	30-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
8	Temp B-A Warning (Normal)	Temp. B-A to judge the Temp Error at Normal (Clogging Det.)	100 100	100 100	100 100	100 100	0-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
9	Temp C-A Warning (Normal)	Temp. C-A to judge the Temp Error at Normal (Clogging Det.)	100 100	100 100	100 100	100 100	0-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
10	Temp A Warning (Eco)	Temp. A to judge the Temp Error at Eco (Room)	42 32	42 32	42 32	42 32	30-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
11	Temp B Warning (Eco)	Temp. B to judge the Temp Error at Eco (Panel)	53 58	53 58	53 58	53 58	30-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
12	Temp C Warning (Eco)	Temp. C to judge the Temp Error at Eco (Lamp)	78 80	78 80	78 80	78 80	20-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
13	Temp B-A Warning (Eco)	Temp. B-A to judge the Temp Error at Eco (Clogging Det.)	100 100	100 100	100 100	100 100	0-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
14	Temp C-A Warning (Eco)	Temp. C-A to judge the Temp Error at Eco (Clogging Det.)	100 100	100 100	100 100	100 100	0-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
15	Temp A Warning Offset (Temp)	Offset of Temp Error (Temp.) Error Setting Value is increased X°C at the below condition * Standby * Right to turn on the lamp *Right to change the Lamp mode	5					
16	Temp B Warning Offset (Temp)		5					
17	Temp C Warning Offset (Temp)		5					
18	Temp B-A Warning Offset (Temp)		0					
19	Temp C-A Warning Offset (Temp)		0					
20	Temp A Warning Offset (Time)	Offset of Temp Error (Minutes) Error Setting Value is increased X minute at the below condition * Standby * Right to turn on the lamp *Right to change the Lamp mode	1					
21	Temp B Warning Offset (Time)		1					
22	Temp C Warning Offset (Time)		1					
23	Temp B-A Warning Offset (Time)		1					
24	Temp C-A Warning Offset (Time)		1					
25	Factory Mode	For factor use	0					

Group/ Item	Item Name	Function	Initial				Range	Note
Group 254	**Fan Control Range Setting (Temp./Voltage)**		Normal	Ceiling	Down	Up		
0	Not used							
1	Not used							
2	Not used							
3	Not used							
4	Not used							
5	Not used							
6	Not used							
7	Not used							
8	Not used							
9	Not used							
10	Normal Fan Control Min Temp	Temp Sensor Control Start/End Temp. at Normal	27 29	27 29	27 29	27 29	20-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
11	Normal Fan Control Max Temp		36 30	36 30	36 30	36 30	20-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
12	Normal Fan1 Min	Fan voltage value at Normal (unit: 0.1V)	70 120	70 120	70 120	70 120	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
13	Normal Fan1 Max		110 120	110 120	110 120	110 120	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
14	Normal Fan2 Min		95 130	95 130	95 130	95 130	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
15	Normal Fan2 Max		120 130	120 130	120 130	120 130	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
16	Normal Fan3 Min		85 106	85 106	85 106	85 106	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
17	Normal Fan3 Max		95 106	95 106	95 106	95 106	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
18	Not used		9999	9999	9999	9999	-	
19	Not used		9999	9999	9999	9999	-	
20	Eco Fan Control Min Temp	Temp Sensor Control Start/End Temp. at Normal	27 29	27 29	27 29	27 29	20-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
21	Eco Fan Control Max Temp		36 30	36 30	36 30	36 30	20-100	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
22	Eco Fan1 Min	Fan voltage value at Eco (unit: 0.1V)	60 100	60 100	60 100	60 100	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
23	Eco Fan1 Max		85 100	85 100	85 100	85 100	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
24	Eco Fan2 Min		75 110	75 110	75 110	75 110	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
25	Eco Fan2 Max		110 110	110 110	110 110	110 110	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
26	Eco Fan3 Min		60 85	60 85	60 85	60 85	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
27	Eco Fan3 Max		65 85	65 85	65 85	65 85	0-255	Normal/Celling/Down/Up HiLand : Normal/ Celling/Down/Up
28	Not used		9999	9999	9999	9999	-	
29	Not used		9999	9999	9999	9999	-	
30	Filter Error Detect Temp	Fan Control Start Temp. (Temp B-A) (Clogging Det.)	18	18	18	18	0-100	Normal/Celling/Down/Up
31	Filter Error Offset Volt	Fan Control Voltage Up (Cloggiing Det.) (unit : 0.1V)	3	3	3	3	0-255	Normal/Celling/Down/Up
Group 255	**Fan Start/Cooling Setting**							
0	Fan1 Initial Volt	Fan Start Voltage (0.1V)	70				0-255	
1	Fan2 Initial Volt		70				0-255	
2	Fan3 Initial Volt		70				0-255	
3	Not used		255				-	
4	Fan1 Cooling Speed	Fan Voltage at Power Off (0.1V)	130				0-255	
5	Fan2 Cooling Speed		130				0-255	
6	Fan3 Cooling Speed		130				0-255	
7	Not used		255				-	
8	Cooling Time Down	Cooling Time stting at Fan Mode Down (x 30 sec) 1: 30, 3: 90, 15: 450 sec.	2				1-15	
9	Cooling Time Up	Cooling Time stting at Fan Mode Up (x 30 sec) 1: 30, 3: 90, 15: 450 sec.	3				1-15	
10	Temp Error Cooling Time	Cooling Time setting at Temp Erro (x 30 sec)	3				1-15	
11	OnStart Cooling Start Threshold		38				0-100	
12	After shutdown cooling	Cooling after shutdown (0: No, 1: Yes)	1				0-1	

Group/ Item	Item Name	Function	Initial	Range	Note
Group 256	**Fan Lamp Voltage Down Setting**				
0	Lamp Voltage	Current Lamp Voltage (0.1V)(Read only)	-	0-255	
1	Lamp Vol Threshold	Threshold to judge Lamp Voltage Down (V×10)		30-90	
2	Fan1 Speed Gain	Additional Fan Speed of Min at Lamp Voltage Down (unit: 0.1V)		0-255	
3	Fan2 Speed Gain			0-255	
4	Fan3 Speed Gain			0-255	
5	Not used		9999	-	
Group 257	**Fan Dimmer Setting**				
0	Dimmer Average Check Period	Dimmer Avarage measurement Time (0:10sec, 1:30sec, 2:60sec, 3: 90sec ...10:300 sec)	1	0-10	
1	Dimmer Average	Dimmer Avarage Value (Read only)	-		
2	Last Voltage Difference	Read only	-		
3	Voltate Difference Goal	Read only			
Group 258	**Fan IC Temp for Netowrk model**				
0	Not used.				
1	Not used.				
2	Not used.				
Group 260	**Auto Calibration (Commn) * Auto Calibration**				
0	Execute Calibration		0	0 - 1	Executes Auto-Calibration when changiing the Value (PC White 100%)
1	Loop Count	Maximum Execution Times (OFFSET->GAIN)	10	1 - 30	
2	Auto Status	Result of Auto-Calibration (Last Memory)	0	0 / 1 / 9	0: OK, 1: Adjusting,9: Error * ReadOnly
3	AutoWait	Wait Value for each setting	1	1 - 20	
4	CHECK -Tolelance	Torelance of OFFSET	2	1 - 255	
Group 261	**Auto Calibration (RGB)**				
0	OFFSET AREA H START	Black Level Acquiring Area H-Start Position	975	0 - 1000	
1	OFFSET AREA V START	Black Level Acquiring Area V-Start Position	500	0 - 1000	
2	GAIN AREA H START	White Level Acquiring Area H-Start Position	25	0 - 1000	
3	GAIN AREA V START	White Level Acquiring Area V-Start Position	500	0 - 1000	
4	Image AREA H WIDTH	Black/White Level Acquiring Area	13	0 - 4095	
5	Image AREA V HIGHT	Black/White Level Acquiring Area Height	9	0 - 4095	
6	OFFSET target	Target Value of Black Level Adj.	3	0 - 127	
7	OFFSET torelance	Torelance of Black Level Adj.	1	1 - 127	
8	GAIN target	Target Value of White Level Adj.	238	0 - 255	
9	GAIN torelance	Torelance of White Level Adj.	1	1 - 255	
Group 262	**Auto Calibration (CVBS/SVIDEO)**				
0	Y Image Area Start X	Y Acquiring Area H-Start Position	20	0 - 1000	
1	Y Image Area Start Y	Y Acquiring Area V-Start Position	500	0 - 1000	
6	Image Area H Width	Image Level Acquiring Area	13	0 - 4095	
7	Image Area V Hight	Image Level Acquiring Area Height	20	0 - 4095	
8	Y Target Level	Target Value of Y Level Adj.	217	0 - 255	
11	Gain Tolerance	Torelance of Level Adj.	1	0 - 255	
12	Delta Gain	Deviation Width of Gain Value	9	0 - 255	
Group 264	**Auto Calibration (YCbCr)**				
0	Y-OFFSET AREA H START	Y - Offset Acquiring Area H-Start Position	925	0 - 1000	
1	Y-OFFSET AREA V START	Y - Offset Acquiring Area V-Start Position	500	0 - 1000	
2	CB - OFFSET AREA H START	CB - Offset Acquiring Area H-Start Position	925	0 - 1000	If not used: use Y's value
3	CB - OFFSET AREA V START	CB - Offset Acquiring Area V-Start Position	500	0 - 1000	If not used: use Y's value
4	CR - OFFSET AREA H START	CR - Offset Acquiring Area H-Start Position	925	0 - 1000	If not used: use Y's value
5	CR - OFFSET AREA V START	CR - Offset Acquiring Area V-Start Position	500	0 - 1000	If not used: use Y's value
6	Y - GAIN AREA H START	Y	50	0 - 1000	
7	Y - GAIN AREA V START		500	0 - 1000	

Group/ Item	Item Name	Function	Initial	Range	Note
8	CB - GAIN AREA H START		800	0 - 1000	
9	CB - GAIN AREA V START		500	0 - 1000	
10	CR - GAIN AREA H START		700	0 - 1000	
11	CR - GAIN AREA V START		500	0 - 1000	
12	Image AREA H WIDTH	YCBCR Level Acquiring Area	8	0 - 4095	
13	Image AREA V HIGHT	YCBCR Level Acquiring Area Height	9	0 - 4095	
14	Y - OFFSET TARTGET		4	0 - 255	
15	CB OFFSET TARGET		128	0 - 255	
16	CR OFFSET TARGET		128	0 - 255	
17	Y - GAIN TARGET		217	0 - 255	
18	CB - GAIN TARGET		237	0 - 255	
19	CR - GAIN TARGET		237	0 - 255	
20	OFFSET torelance	Torelance of OFFSET Adj.	1	1 - 255	
21	GAIN torelance	Torelance of GAIN Adj.	1	1 - 255	
Group 270	**CUSTUM (Aspect)**				
0	Scaler Horizontal	Horizontal Expansion and contraction rate	100	68 - 132	
1	Scaler Vertical	vertical Expansion and contraction rate	100	68 - 132	
2	Connect	Select Individual / synchronizatio	0	0 - 1	0 : Individual 1 : synchronizatio
3	Position Horizontal	Revise Horizontal Position	100	85 - 115	
4	Position Vertical	Revise Vertical Position	100	85 - 115	
5	Aspect Enable	Aspect Adjustment Enable	0	0 - 1	0: TRUE 1: FALSE
Group 280	**AutoPC Adjsut**				
0	AutoPCAdjustEnable	Auto-PC Adj Operation Enable if Un-supported Signal Input	0	0 - 1	0: Enable, 1: Disable
1	Frequency Step	Frequency Steps of TotalDot	1	0-3	
2	Frequency Threshold	Total Dot Freqency Threshold	5	0 - 10	0 [] <--- -----> 10[Not matched]
3	Fine Phase	Do Phase Adj after Total Dot Adj.	1	0 - 1	0: Executes Fine Phase, 1: Not Execute
4	BLKDET	Black Level Detection Area	1	0 - 7	
5	PHASEMSK	Phase Detection Filter	0	0 - 3	0: Effective All Bit, 1: Disable Lower 1 bit 2: Disable Lower 2 bit, 3: Disable Lower 3 bit
Group 290	**PanelType * Panel Type Check**				
0	GammaL/R-View	Current Setting Check	0	0-20	0: Gamma for L-Turn 20: Gamma for R-Turn * Read only
1	GammaL/R-Change	Setting of Gamma	10	0-20	Sets L-Turn Gamma if the Value is set to 0. Sets R-Turn Gamma if the Value is set to 20.
Group 500	**Composite (NTSC) Composite / S-Video**				
0					
1	Disp Dots		668	0 ~ 4095	
2	H Back Porch		28	0 ~ 4095	
3	V Back Porch		18	0 ~ 4095	
4	Disp Line		458	0 ~ 4095	
7	Overscan	Not used			
8	VSBEG	Not used			
Group 501	**Composite (PAL) Composite / S-Video**				
0					
1	Disp Dots		658	0 ~ 4095	
2	H Back Porch		34	0 ~ 4095	
3	V Back Porch		22	0 ~ 4095	
4	Disp Line		536	0 ~ 4095	
Group 502	**Composite (SECAM) Composite / S-Video**				
0					
1	Disp Dots		652	0 ~ 4095	
2	H Back Porch		28	0 ~ 4095	
3	V Back Porch		22	0 ~ 4095	
4	Disp Line		536	0 ~ 4095	
Group 510	**SCART(480i)**				
0					
1	Disp Dots		662	0 ~ 4095	
2	H Back Porch		142	0 ~ 4095	

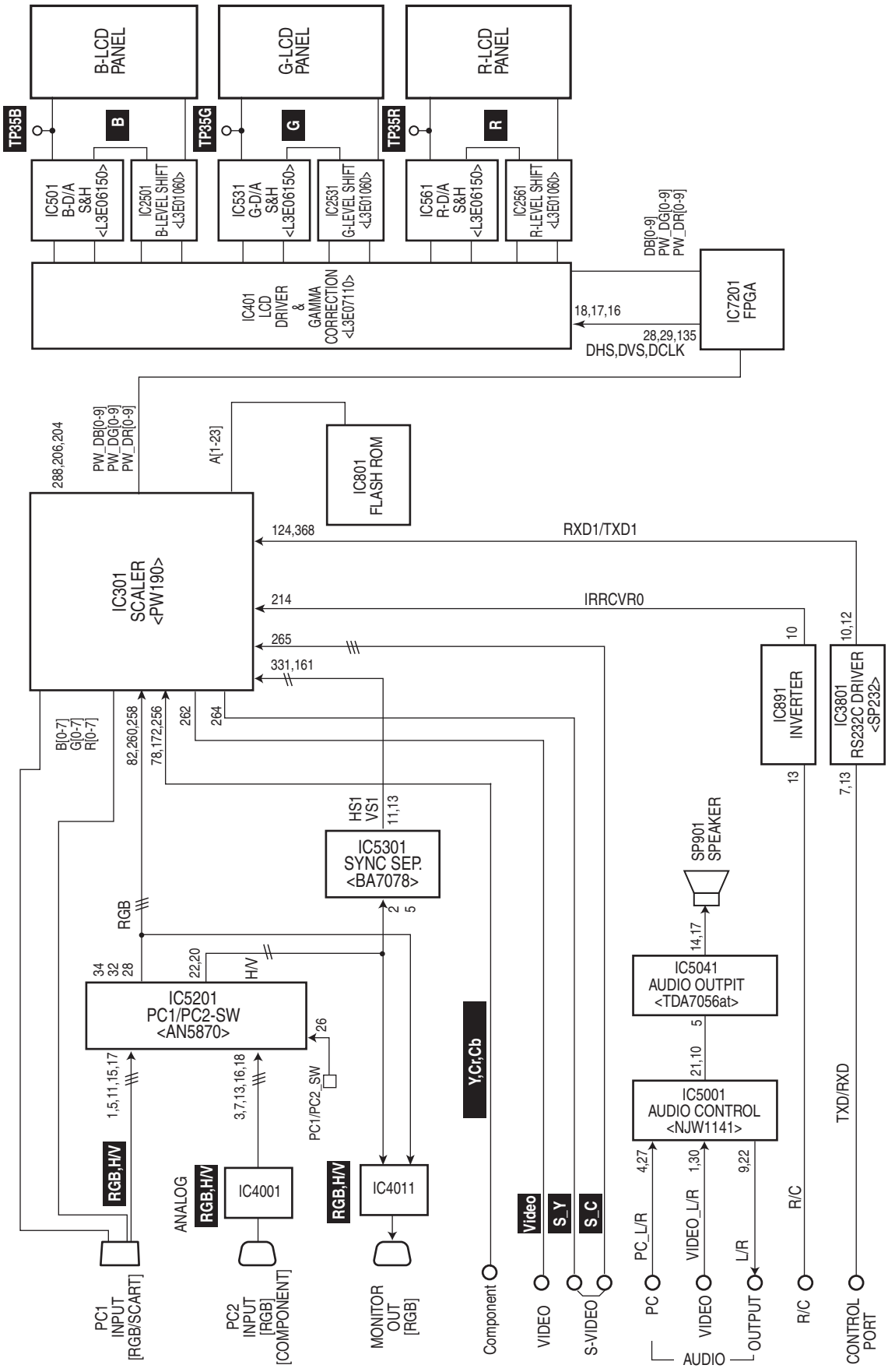
Group/ Item	Item Name	Function	Initial	Range	Note
3	V Back Porch		48	0 ~ 4095	
4	Disp Line		456	0 ~ 4095	
Group 511	**SCART (575i)**				
0					
1	Disp Dots		648	0 ~ 4095	
2	H Back Porch		166	0 ~ 4095	
3	V Back Porch		63	0 ~ 4095	
4	Disp Line		534	0 ~ 4095	
Group 520	**YCbCr (480i)**				
0	Total Dots		858	0 ~ 4095	
1	Disp Dots		670	0 ~ 4095	
2	H Back Porch		147	0 ~ 4095	
3	V Back Porch		46	0 ~ 4095	
4	Disp Line		458	0 ~ 4095	
Group 521	**YCbCr (575i)**				
0	Total Dots		864	0 ~ 4095	
1	Disp Dots		650	0 ~ 4095	
2	H Back Porch		163	0 ~ 4095	
3	V Back Porch		64	0 ~ 4095	
4	Disp Line		534	0 ~ 4095	
Group 522	**YCbCr (480P)**				
0	Total Dots		858	0 ~ 4095	* Read only
1	Disp Dots		684	0 ~ 4095	
2	H Back Porch		136	0 ~ 4095	
3	V Back Porch		47	0 ~ 4095	
4	Disp Line		460	0 ~ 4095	
Group 523	**YCbCr (575P)**				
0	Total Dots		864	0 ~ 4095	* Read only
1	Disp Dots		680	0 ~ 4095	
2	H Back Porch		143	0 ~ 4095	
3	V Back Porch		55	0 ~ 4095	
4	Disp Line		550	0 ~ 4095	
Group 524	**YCbCr (720P - 60)**				
0	Total Dots		1650	0 ~ 4095	* Read only
1	Disp Dots		1248	0 ~ 4095	
2	H Back Porch		312	0 ~ 4095	
3	V Back Porch		34	0 ~ 4095	
4	Disp Line		700	0 ~ 4095	
Group 525	**YCbCr (720P - 50)**				
0	Total Dots		1980	0 ~ 4095	* Read only
1	Disp Dots		1248	0 ~ 4095	
2	H Back Porch		337	0 ~ 4095	
3	V Back Porch		35	0 ~ 4095	
4	Disp Line		700	0 ~ 4095	
Group 526	**YCbCr (1080i - 60)**				
0	Total Dots		2200	0 ~ 4095	* Read only
1	Disp Dots		1872	0 ~ 4095	
2	H Back Porch		255	0 ~ 4095	
3	V Back Porch		54	0 ~ 4095	
4	Disp Line		1052	0 ~ 4095	
Group 527	**YCbCr (1080i - 50)**				
0	Total Dots		2640	0 ~ 4095	* Read only
1	Disp Dots		1870	0 ~ 4095	
2	H Back Porch		255	0 ~ 4095	
3	V Back Porch		54	0 ~ 4095	
4	Disp Line		1052	0 ~ 4095	
Group 528	**YCbCr (1035i)**				
0	Total Dots		2200	0 ~ 4095	* Read only
1	Disp Dots		1872	0 ~ 4095	

Group/ Item	Item Name	Function	Initial	Range	Note
2	H Back Porch		257	0 ~ 4095	
3	V Back Porch		90	0 ~ 4095	
4	Disp Line		1012	0 ~ 4095	
Group 540	**RGB Video (480i)**				
0	Total Dots		960	0 ~ 4095	
1	Disp Dots		752	0 ~ 4095	
2	H Back Porch		166	0 ~ 4095	
3	V Back Porch		48	0 ~ 4095	
4	Disp Line		460	0 ~ 4095	
Group 541	**RGB Video (575i)**				
0	Total Dots		966	0 ~ 4095	
1	Disp Dots		736	0 ~ 4095	
2	H Back Porch		182	0 ~ 4095	
3	V Back Porch		66	0 ~ 4095	
4	Disp Line		536	0 ~ 4095	
Group 542	**RGB Video (480P)**				
0	Total Dots		960	0 ~ 4095	
1	Disp Dots		766	0 ~ 4095	
2	H Back Porch		156	0 ~ 4095	
3	V Back Porch		47	0 ~ 4095	
4	Disp Line		460	0 ~ 4095	
Group 543	**RGB Video (575P)**				
0	Total Dots		986	0 ~ 4095	
1	Disp Dots		774	0 ~ 4095	
2	H Back Porch		174	0 ~ 4095	
3	V Back Porch		62	0 ~ 4095	
4	Disp Line		540	0 ~ 4095	
Group 544	**RGB Video (720P - 60)**				
0	Total Dots		1650	0 ~ 4095	
1	Disp Dots		1248	0 ~ 4095	
2	H Back Porch		312	0 ~ 4095	
3	V Back Porch		34	0 ~ 4095	
4	Disp Line		702	0 ~ 4095	
Group 545	**RGB Video (720P - 50)**				
0	Total Dots		1980	0 ~ 4095	
1	Disp Dots		1246	0 ~ 4095	
2	H Back Porch		314	0 ~ 4095	
3	V Back Porch		34	0 ~ 4095	
4	Disp Line		702	0 ~ 4095	
Group 546	**RGB Video (1080i - 60)**				
0	Total Dots		2200	0 ~ 4095	
1	Disp Dots		1872	0 ~ 4095	
2	H Back Porch		255	0 ~ 4095	
3	V Back Porch		54	0 ~ 4095	
4	Disp Line		1052	0 ~ 4095	
Group 547	**RGB Video (1080i - 50)**				
0	Total Dots		2640	0 ~ 4095	
1	Disp Dots		1868	0 ~ 4095	
2	H Back Porch		257	0 ~ 4095	
3	V Back Porch		54	0 ~ 4095	
4	Disp Line		1052	0 ~ 4095	
Group 548	**RGB Video (1035i)**				
0	Total Dots		2200	0 ~ 4095	
1	Disp Dots		1868	0 ~ 4095	
2	H Back Porch		258	0 ~ 4095	
3	V Back Porch		90	0 ~ 4095	
4	Disp Line		1012	0 ~ 4095	
Group 549	**RGB Video (1080P - 60)**				
0	Total Dots		2200	0 ~ 4095	

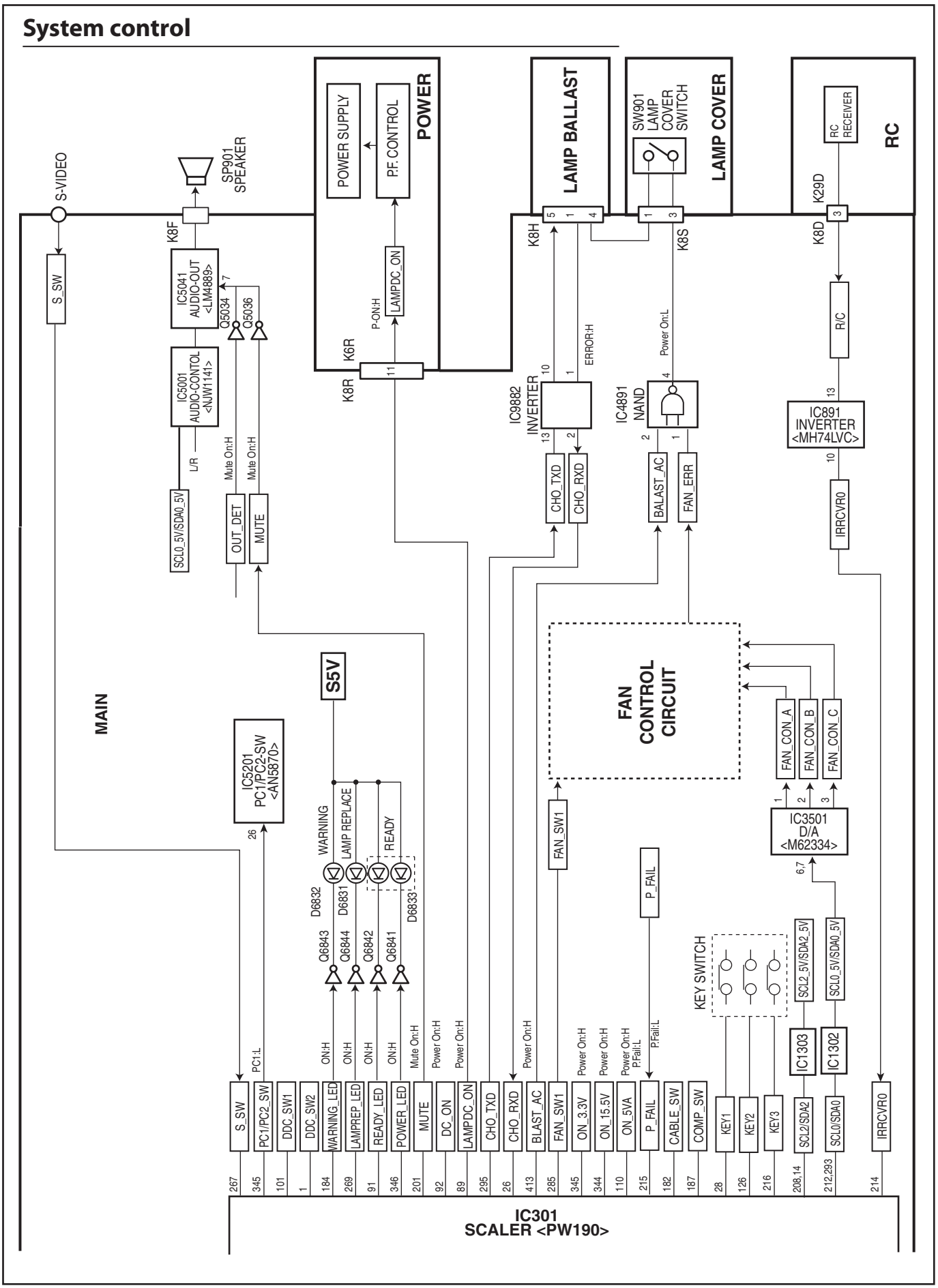
Group/ Item	Item Name	Function	Initial	Range	Note
1	Disp Dots		1868	0 ~ 4095	
2	H Back Porch		258	0 ~ 4095	
3	V Back Porch		92	0 ~ 4095	
4	Disp Line		1012	0 ~ 4095	
Group 550	**RGB Video (1080P - 50)**				
0	Total Dots		2640	0 ~ 4095	
1	Disp Dots		1868	0 ~ 4095	
2	H Back Porch		258	0 ~ 4095	
3	V Back Porch		54	0 ~ 4095	
4	Disp Line		1052	0 ~ 4095	
Group 551	**RGB Video (1080P - 30)**				
0	Total Dots		2200	0 ~ 4095	
1	Disp Dots		1868	0 ~ 4095	
2	H Back Porch		260	0 ~ 4095	
3	V Back Porch		46	0 ~ 4095	
4	Disp Line		1066	0 ~ 4095	
Group 552	**RGB Video (1080P - 25)**				
0	Total Dots		2640	0 ~ 4095	
1	Disp Dots		1872	0 ~ 4095	
2	H Back Porch		258	0 ~ 4095	
3	V Back Porch		48	0 ~ 4095	
4	Disp Line		1064	0 ~ 4095	
Group 553	**RGB Video (1080P - 24)**				
0	Total Dots		2750	0 ~ 4095	
1	Disp Dots		1878	0 ~ 4095	
2	H Back Porch		214	0 ~ 4095	
3	V Back Porch		46	0 ~ 4095	
4	Disp Line		1070	0 ~ 4095	
Group 560	**HDCP (480P)**				
7	Over Scan	Over Scan Rate (0 ~ 25.5% at 0.1% steps)	0	0 - 255	
8	VSBEG		2	0 - 15	
Group 561	**HDCP (575P)**				
7	Over Scan	Over Scan Rate (0 ~ 25.5% at 0.1% steps)	0	0 - 255	
8	VSBEG		2	0 - 15	
Group 562	**HDCP (720P-60)**				
7	Over Scan	Over Scan Rate (0 ~ 25.5% at 0.1% steps)	0	-	
8	VSBEG		2	0 - 15	
Group 563	**HDCP (720P-50)**				
7	Over Scan	Over Scan Rate (0 ~ 25.5% at 0.1% steps)	0	0 - 255	
8	VSBEG		2	0 - 15	
Group 564	**HDCP (1080i-60)**				
7	Over Scan	Over Scan Rate (0 ~ 25.5% at 0.1% steps)	0	0 - 255	
8	VSBEG		2	0 - 15	
Group 565	**HDCP (1080i-50)**				
7	Over Scan	Over Scan Rate (0 ~ 25.5% at 0.1% steps)	0	0 - 255	
8	VSBEG		2	0 - 15	
Group 566	**HDCP (1035i)**				
7	Over Scan	Over Scan Rate (0 ~ 25.5% at 0.1% steps)	0	0 - 255	
8	VSBEG		2	0 - 15	
Group 981	**Color Shading Adj Offset**				
0	R-Max		0/0	0-255	
1	R-Mid1		0/0	0-255	
2	R-Mid2		0/0	0-255	
3	R-Min		0/0	0-255	
4	G-Max		0/0	0-255	
5	G-Mid1		0/0	0-255	
6	G-Mid2		0/0	0-255	
7	G-Min		0/0	0-255	
8	B-Max		0/0	0-255	
9	B-Mid1		0/0	0-255	
10	B-Mid2		0/0	0-255	
11	B-Min		0/0	0-255	

Chassis Block Diagrams

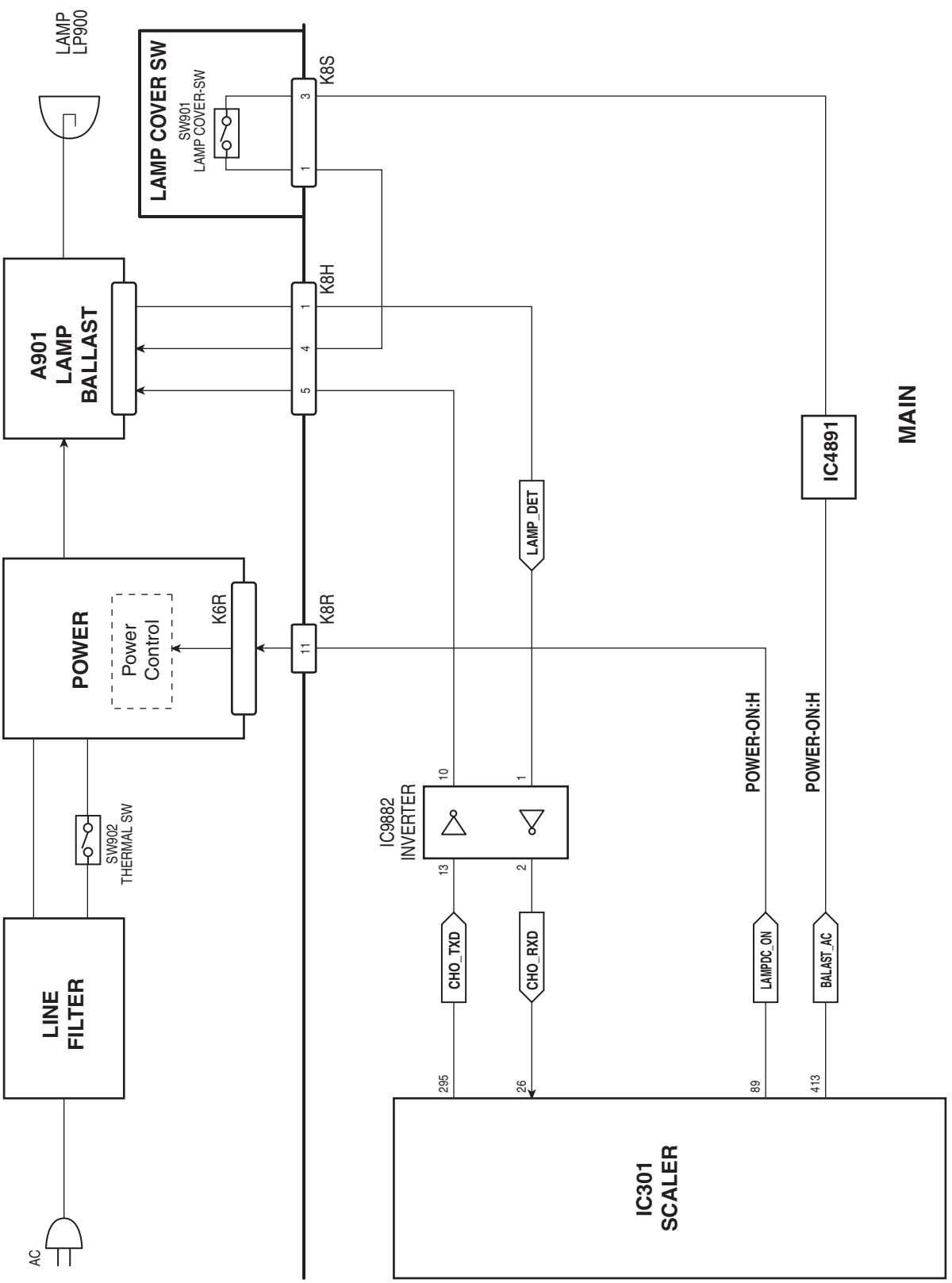
Chassis over view



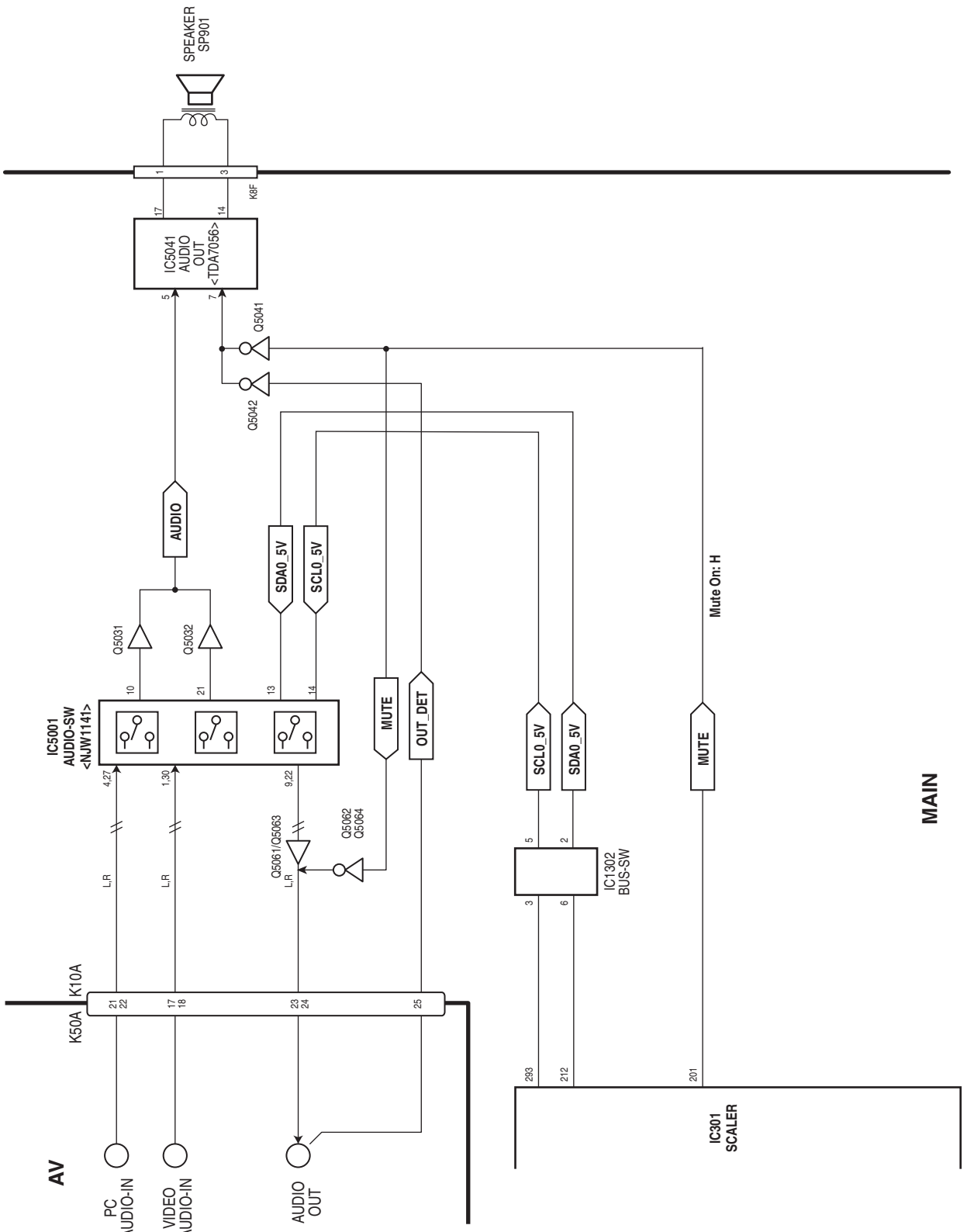
System control



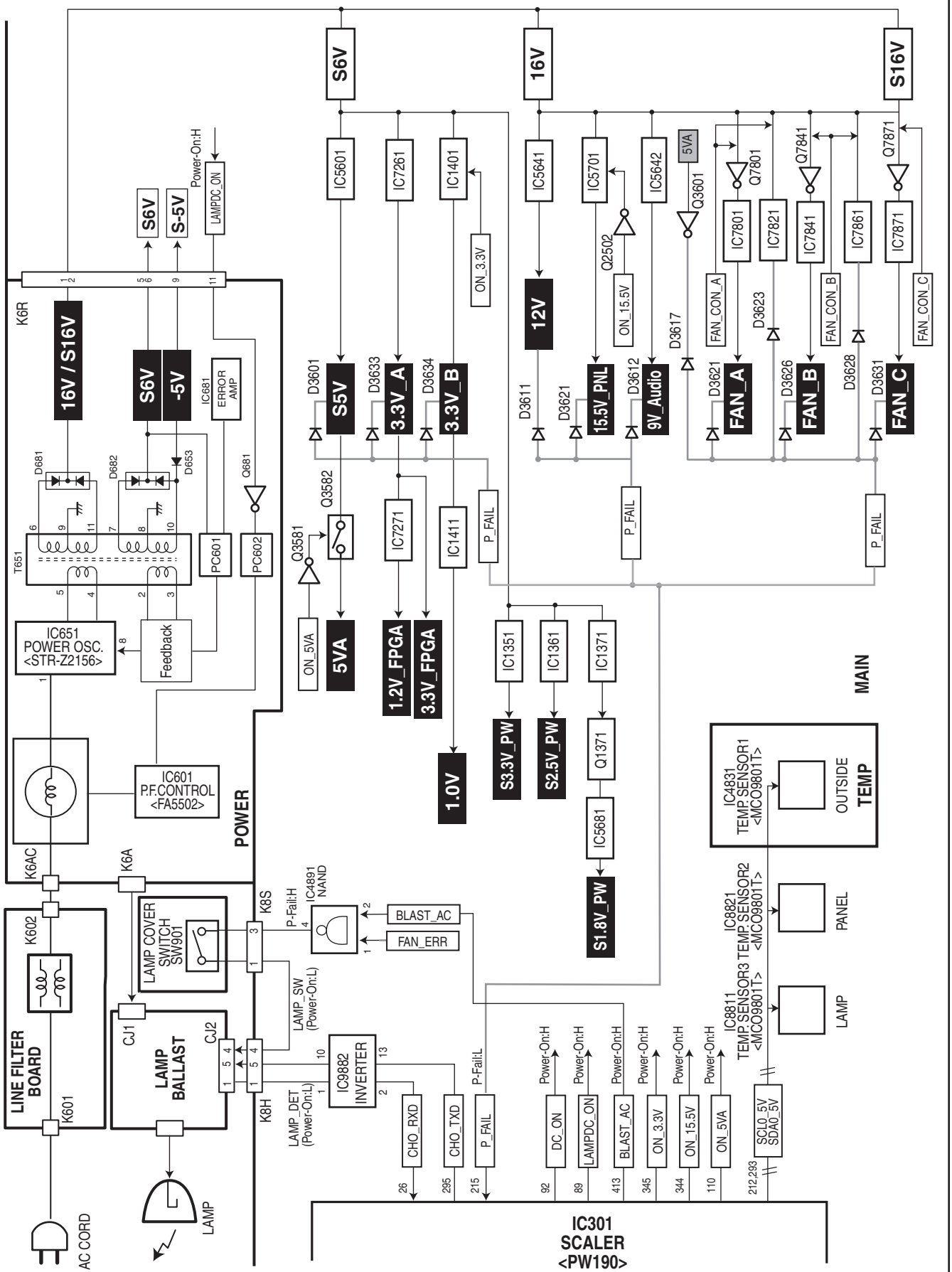
Lamp control



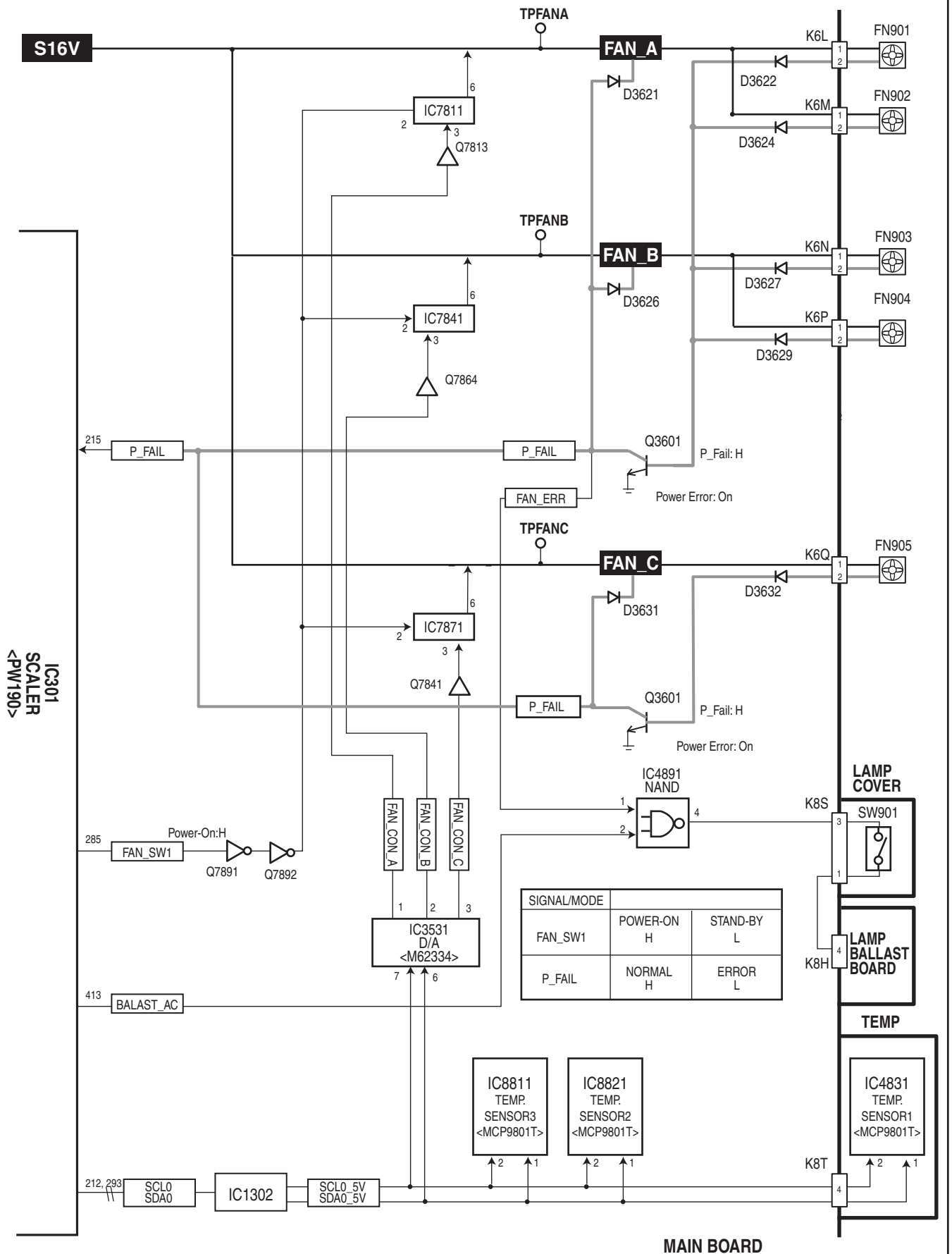
Audio circuit



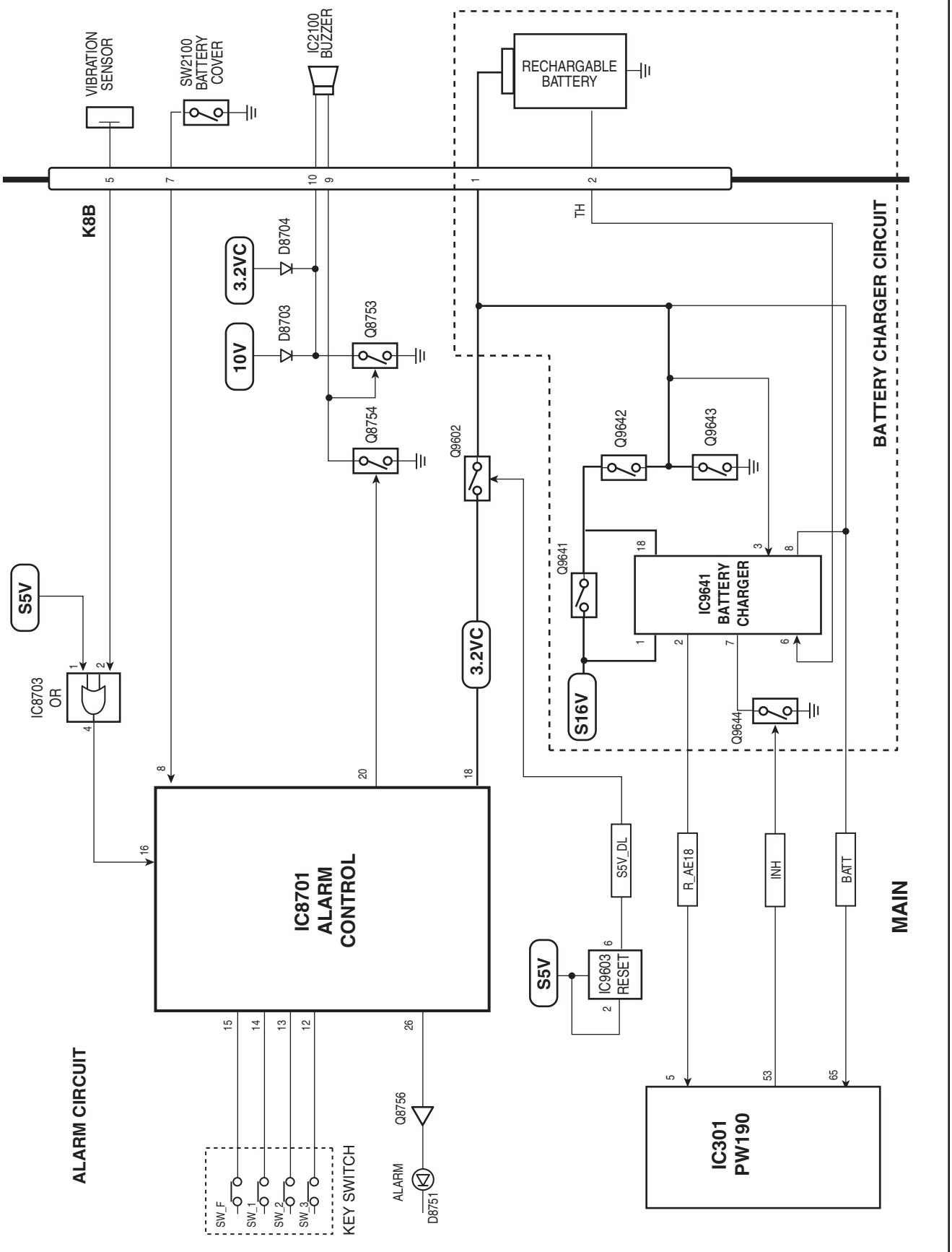
Power supply & protection circuit



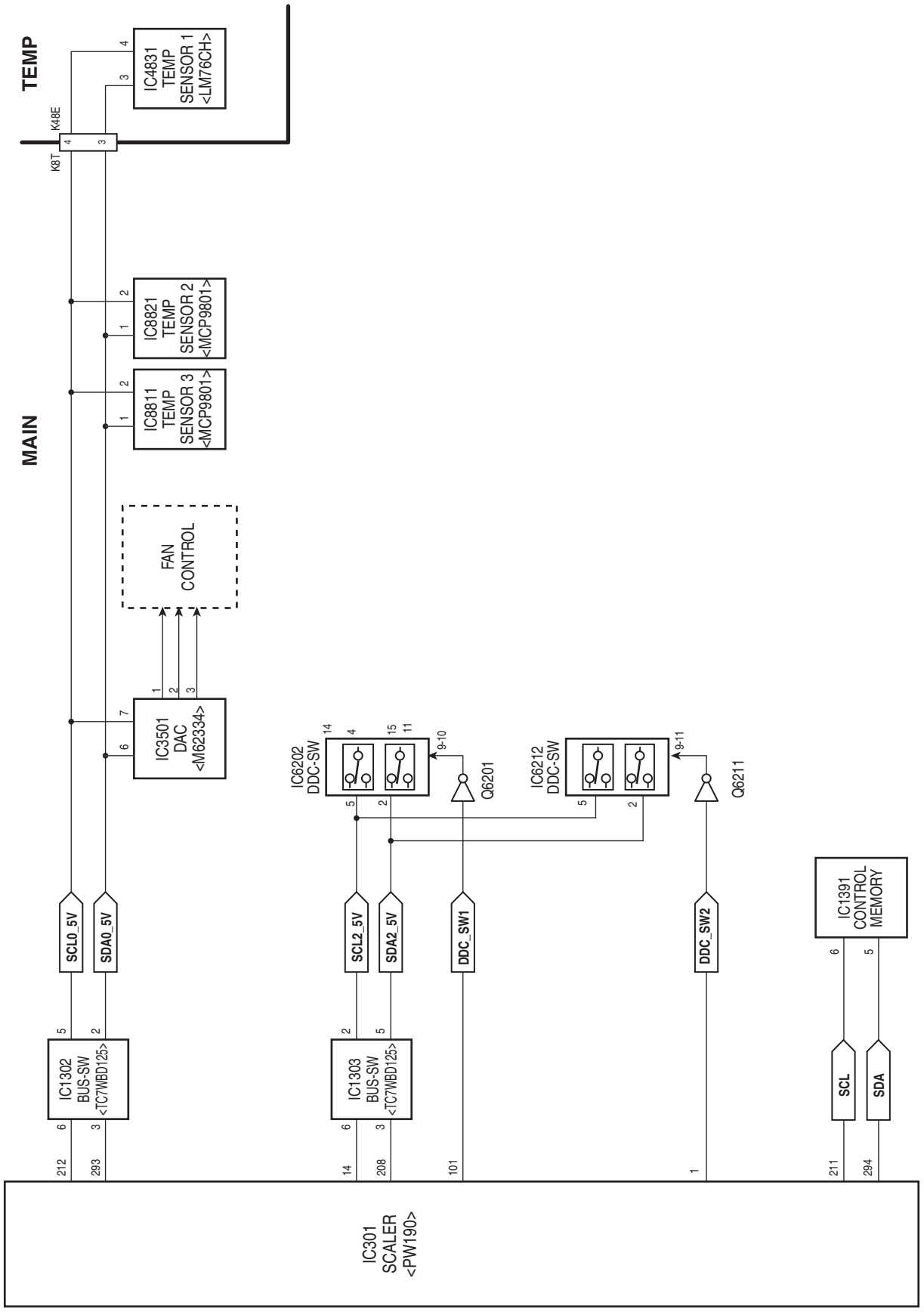
Fan control circuit



Alarm circuit



IIC bus control circuit



■ Troubleshooting

Indicators and Projector Condition

Check the indicators for projector condition.

Indicators			Projector Condition
POWER red/green	WARNING red	LAMP REPLACE yellow	
●	●	●	The projector is off. (The AC power cord is unplugged.)
◍ blinks	●	✱	The projector is preparing for stand-by or the projection lamp is being cooled down. The projector cannot be turned on until cooling is completed and the POWER indicator stops blinking.
◍	●	✱	The projector is ready to be turned on with the POWER ON-OFF button.
○	●	✱	The projector is operating normally.
○ blinks	●	✱	The projector is in the Power management mode.
◍ blinks	◍ blinks	✱	The temperature inside the projector is abnormally high. The projector cannot be turned on. When the projector is cooled down enough and the temperature returns to normal, the POWER indicator emits a red light and the projector can be turned on. (The WARNING indicator keeps blinking.) Check and clean the air filter.
◍	◍ blinks	✱	The projector has been cooled down enough and the temperature returns to normal. When turning on the projector, the WARNING indicator stops blinking. Check and clean the air filter.
●	◍	✱	The projector detects an abnormal condition and cannot be turned on. Check power supply circuit and fans control circuit.

○ • • • green. ◍ • • • red ● • • • off

○ • • • blinks green. ◍ • • • blinks red.

✱ When the life of the projection lamp draws to an end, the LAMP REPLACE indicator lights yellow. When this indicator lights yellow, replace the projection lamp with a new one promptly. Reset the lamp replacement counter after replacement of the lamp.

No Power

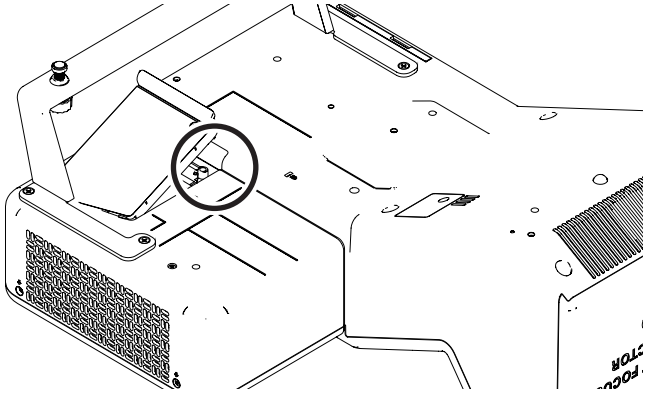
This projector provides a function which can be specified a defective area simply by indicating the LEDs. Connect the AC cord and press the Power button once and then check the LED indication.

- **Whenall of LED indicators are not lighting**, the symptom indicates that the primary power supply circuit does not operate properly. Check the power primary circuit and parts as follow;
  AC cord, F601 (Fuse), Power board,
  SW902 (Thermal sw.) short in normal
  SW902 opens when the surrounding temperature of the switch exceeds 100°C.

- **When the WARNING (red) and POWER(red) indicators are flashing**, the symptom indicates that the projector detected an abnormal temperature risen inside the projector. Check the air filters and remove the object near the intake and exhaust fan openings, and wait until the POWER indicator stops flashing, and then try to turn on the projector.
  The internal temperature is monitored by sensor ICs, IC8811(Lamp), IC8821 (Panel) on the Main board and IC4831 (Room) on the Temp. board

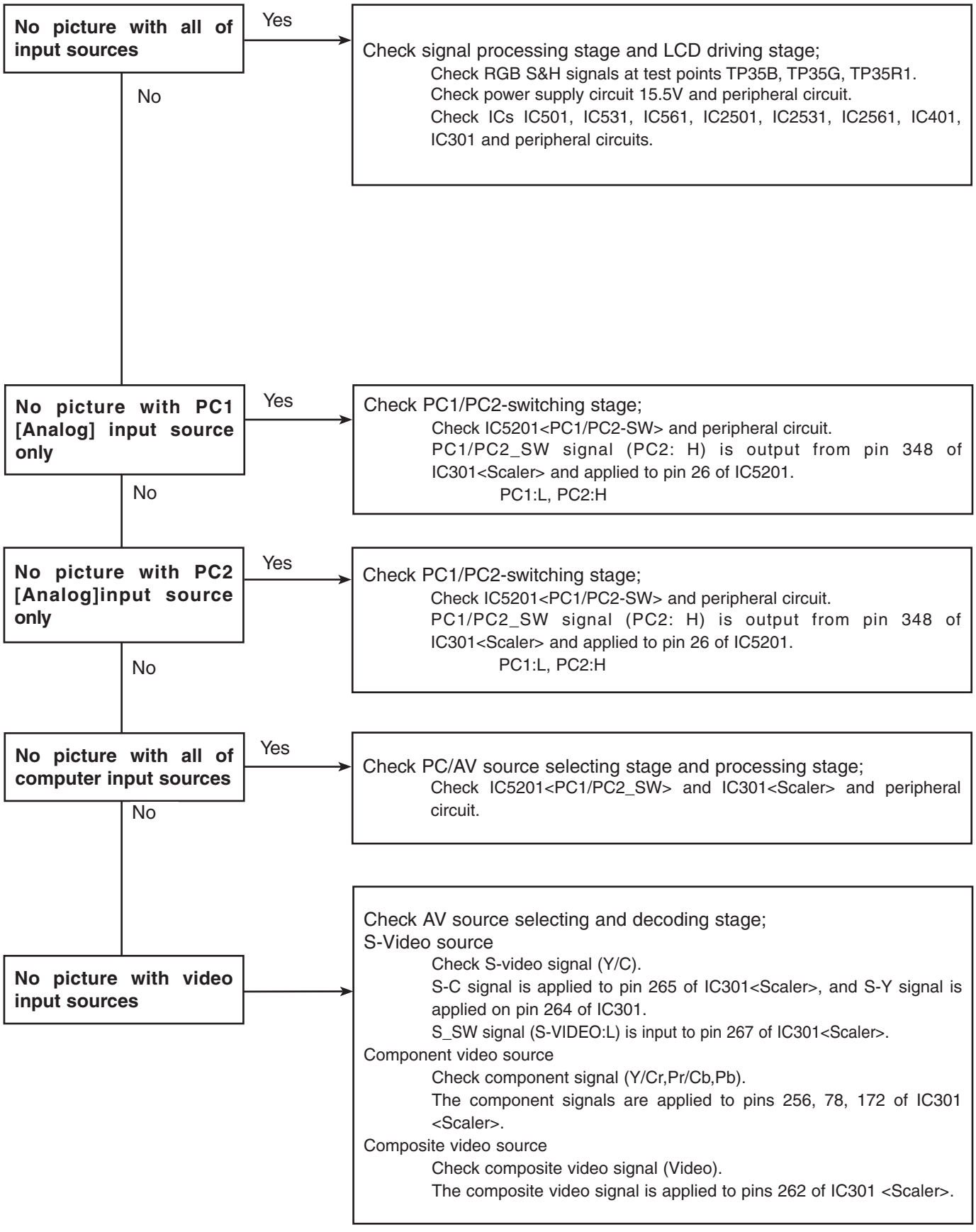
- **When the WARNING indicator lights red**, the symptom indicates that the projector detected an abnormality in the cooling fan operation or in the power supply secondary circuits. Check fan operation and power supply lines, and the driving signal status.
  The P_FAIL signal (Error: L) is sent to pin 215 of IC301<SCALER> when the abnormality occurres inside the projector, and then the IC301 sends the shutdown signal, LAMPDC_ON, to the power supply circuit to stop its operation, and signal BALAST_AC to the lamp ballast board via IC4891 and SW901<lamp cover switch> to stop operation of the lamp circuit.
  An abnormality occurs on the secondary power supply;
  Check power supplies 16V, S6V, S-5V S16V. P_FAIL signal becomes “Low” when the abnormality occurs on any of the power supply lines.
  An abnormality occurs on the fan control circuit;
  Check FN901, FN902, FN903, FN904, FN905, and peripheral circuit.
  If any of the fans has an error, the fan lock signal drives Q3601 becomes on. As the result, signal FAN_ERR becomes Low and is sent to lamp ballast board to stop lamp circuit.
  An abnormality occurs on the drive signals;
  ON_15.5V signal (Power-on: H) is output from pin 344 of IC301 and 16V supply circuit. ON_5VA signal (Power-on: H) is output from pin 110 of IC301 and switches Q3582, 5VA supply circuit. 9V_AUDIO supply circuit. ON_3.3V signal (Power-on: H) is output from pin 345 of IC301 and switches IC1401, 3.3V_A supply circuit.
  LAMPDC_ON signal (Power-on: H) is output from pin 89 of IC301 and supplied to the P.F Control IC, IC601, on the power supply board through Q681, and PC602.
  BALAST_AC signal (Power-on: H) is output from pin 413 of IC301 and applied to pin 2 of IC4891 and output pin 4 and then supplied to the lamp ballast board through SW901<Lamp Cover SW>.
  CHO_RXD signal at pin 26 of IC301 is applied from the lamp ballast unit. If the abnormality occurred on the lamp ballast unit, LAMP_DET/CHO_RXD signal becomes “High” and then IC301 shuts down the power supply circuit.

Lamp Cover switch
Make sure that the lamp cover is mounted correctly. If not or the lamp cover removed, the lamp does not light on for the safety. Check the lamp cover and lamp cover switch (SW901).



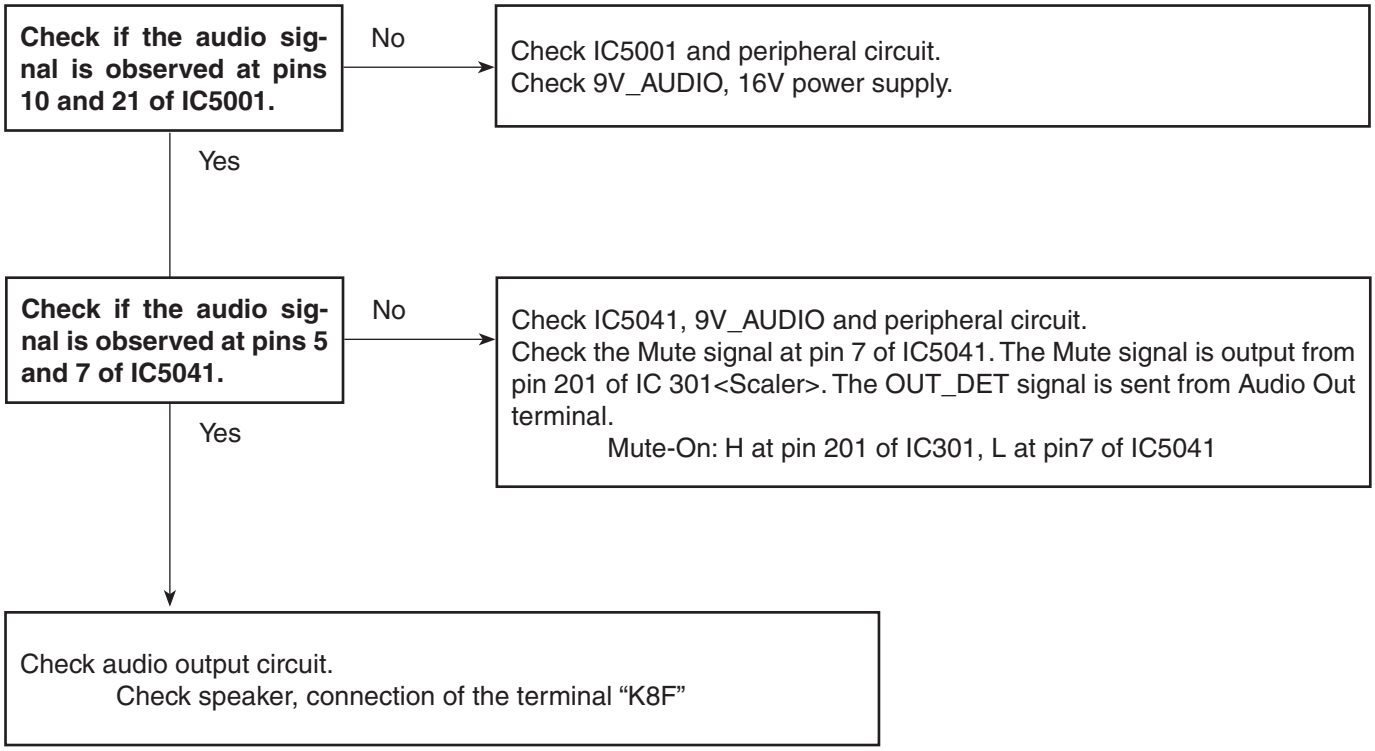
No Picture

Check following steps.


No picture with all of input sources
Yes
Check signal processing stage and LCD driving stage;
Check RGB S&H signals at test points TP35B, TP35G, TP35R1.
Check power supply circuit 15.5V and peripheral circuit.
Check ICs IC501, IC531, IC561, IC2501, IC2531, IC2561, IC401, IC301 and peripheral circuits.
No
No picture with PC1 [Analog] input source only
Yes
Check PC1/PC2-switching stage;
Check IC5201<PC1/PC2-SW> and peripheral circuit.
PC1/PC2_SW signal (PC2: H) is output from pin 348 of IC301<Scaler> and applied to pin 26 of IC5201.
PC1:L, PC2:H
No
No picture with PC2 [Analog]input source only
Yes
Check PC1/PC2-switching stage;
Check IC5201<PC1/PC2-SW> and peripheral circuit.
PC1/PC2_SW signal (PC2: H) is output from pin 348 of IC301<Scaler> and applied to pin 26 of IC5201.
PC1:L, PC2:H
No
No picture with all of computer input sources
Yes
Check PC/AV source selecting stage and processing stage;
Check IC5201<PC1/PC2_SW> and IC301<Scaler> and peripheral circuit.
No
No picture with video input sources
Check AV source selecting and decoding stage;
S-Video source
Check S-video signal (Y/C).
S-C signal is applied to pin 265 of IC301<Scaler>, and S-Y signal is applied on pin 264 of IC301.
S_SW signal (S-VIDEO:L) is input to pin 267 of IC301<Scaler>.
Component video source
Check component signal (Y/Cr,Pr/Cb,Pb).
The component signals are applied to pins 256, 78, 172 of IC301 <Scaler>.
Composite video source
Check composite video signal (Video).
The composite video signal is applied to pins 262 of IC301 <Scaler>.

No Sound

Check following steps.


Check if the audio signal is observed at pins 10 and 21 of IC5001.
No
Check IC5001 and peripheral circuit.
Check 9V_AUDIO, 16V power supply.
Yes
Check if the audio signal is observed at pins 5 and 7 of IC5041.
No
Check IC5041, 9V_AUDIO and peripheral circuit.
Check the Mute signal at pin 7 of IC5041. The Mute signal is output from pin 201 of IC 301<Scaler>. The OUT_DET signal is sent from Audio Out terminal.
Mute-On: H at pin 201 of IC301, L at pin7 of IC5041
Yes
Check audio output circuit.
Check speaker, connection of the terminal “K8F”

Control Port Functions

Scaler I/O Port Functions (PW190)

PIN NO.	PORT NO.	PORT NAME	FUNCTION	SIGNAL NAME	DESCRIPTION	I/O
90	M1	PORTA0	I/O	XSTDBYEN	Standby mode Enable/disable	O
183	M2	PORTA1	I/O	XRESET	I/O Expander Reset	O
474	N6	PORTA2	I/O	WAKE UP	for I/O Expander	I
89	N1	PORTA3	LAMP	LAMP_DC_ON	Lamp Control, Power On: H	O
443	N5	PORTA4	LAMP	BLAST_AC	Power Control, Power On: H	O
182	N2	PORTA5	SIGNAL	CABLE_SW	Long Cabke Switch Output,Long Cable: H	O
267	N3	PORTA6	SIGNAL	S_SW	S-Video Input Switch	I
344	N4	PORTA7	POWER	ON_15.5V	15.5V Power Drive. Power ON: H	O
236	M3	PORTB0	SIGNAL	MONIT_OUT	Monitor Out/Computer Switch Monitor Out : H	O
185	K2	PORTB1	LAMP	LAMP_DET	Power Control, Power On: H	I
202	M4	PORTB2	POWER	ON_3.3V	3-Wired Serial Control Data	O
204	K1	PORTB3	POWER	DC_ON	IIC Bus Control Clock	O
346	L4	PORTB4	LED	POWER_LED	V-Sync. Output	O
91	L1	PORTB5	LED	READY_LED	IIC Bus Control Data	O
184	L2	PORTB6	LED	TEMP._LED	IIC Bus Control Clock	O
269	L3	PORTB7	LED	LAMP_LED	IIC Bus Control Data	O
363	E15	PORTC0		-	Noy Used	-
111	B12	PORTC1	GAMMA	SCS_PW	3wirw Chip Select	O
262	C12	PORTC2	GAMMA	SDATA_PW_EXT	3wire Data	O
285	D12	PORTC3	FAN	FAN_SW1	Fan_Control_1 ON:H	O
362	E14	PORTC4	GAMMA	IRM_RST	Digital Gamma Reset Reset:L	O
41	A11	PORTC5	POWER	PC1/PC2_SW	PC1/PC2 Switch PC1 : L	O
110	B11	PORTC6	POWER	ON_5VA	5V Power On/Off ON: H	O
201	C11	PORTC7	POWER	MUTE	Audio Mute ON : H	O
160	AE12	PORTD0/A20	ADR	A20	Address 20	O
65	AF12	PORTD1/A21	ADR	A21	Address 21	O
329	AC9	PORTD2/A22	ADR	A22	Address 22	O
249	AD10	PORTD3/A23	ADR	A23	Address 23	O
347	K4	PORTD4	-	-	Not Used	-
278	D5	PORTD5	-	-	Not Used	-
101	B2	PORTD6	AUDIO	DDC_SW1	DDC Mode Switch OFF :L	O
1	A1	PORTD7	DVI	DDC_SW2	DDC Mode Switch OFF :L	O
356	E5	PORTE0/IN1R2	SIGNAL	FPGA_STATUS	Config Status Signal	I
276	D3	PORTE1/IN1R3	SIGNAL	FPGA_CONFIG_DONE	Config Process End Signal	I
352	E4	PORTE2/IN1R4	SIGNAL	STB_FPGA	FPGA Chip Select (Strobe)	O
99	C1	PORTE3/IN1R5	SIGNAL	CONFIG_FPGA	Config Start Pin	O
191	D2	PORTE4/IN1R6	SIGNAL	I/O_TXD0	Alarm	I
275	E3	PORTE5/IN1R7	SIGNAL	I/O_AN3	Alarm	I
98	D1	PORTE6/IN1R8	SIGNAL	I/O_ALARM_OUT	Alarm	I
190	E2	PORTE7/IN1R9	SIGNAL	FAULT	Alarm	I
97	E1	PORTF0/IN1G2	-	FAN_CON_C	Not Used	-
189	F2	PORTF1/IN1G3	-	MUTE	Not Used	-
420	F5	PORTF2/IN1G4	-	SICLK	Not Used	-
273	G3	PORTF3/IN1G5	-	SIDEN	Not Used	-
96	F1	PORTF4/IN1G6	SIGNAL	I/O_RXD0	Alarm	O
188	G2	PORTF5/IN1G7	SIGNAL	I/O_CKL0	Alarm	O
419	G5	PORTF6/IN1G8	SIGNAL	I/O_TC	Alarm	O
95	G1	PORTF7/IN1G9	SIGNAL	INH	Alarm	O
187	H2	PORTG0/IN1B2	SIGNAL	COMP_SW	Component DEtect	I
94	H1	PORTG1/IN1B3	-	-	Not Used	-
348	J4	PORTG2/IN1B4	-	-	Not Used	-
271	J3	PORTG3/IN1B5	-	-	Not Used	-
349	H4	PORTG4/IN1B6	-	-	Not Used	-
186	J2	PORTG5/IN1B7	-	-	Not Used	-
418	H5	PORTG6/IN1B8	-	-	Not Used	-
93	J1	PORTG7/IN1B9	-	-	Not Used	-
368	E20	PORTH0/RXD[0]	RXD_PW	RXD_PW	UART RXD	I

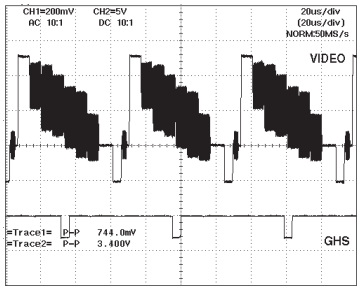
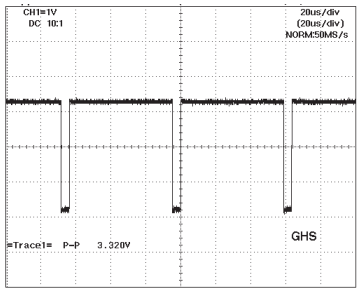
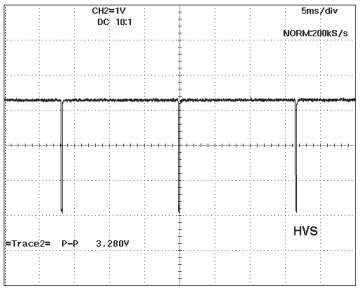
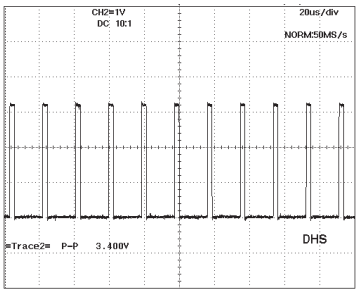
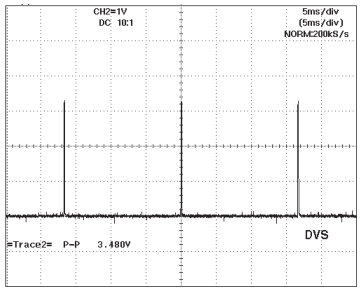
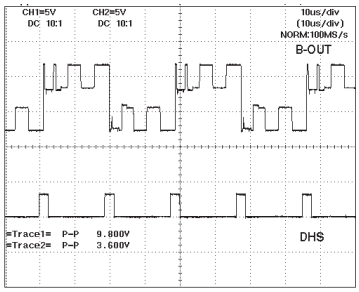
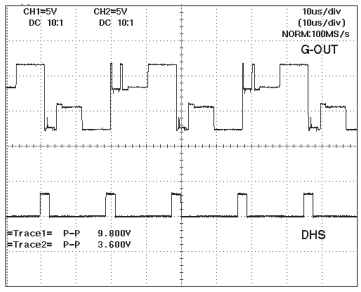
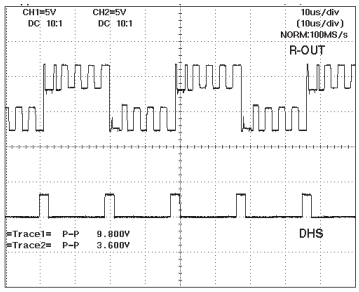
Scaler I/O Port Functions (PW190) (Continue)

PIN NO.	PORT NO.	PORT NAME	FUNCTION	SIGNAL NAME	DESCRIPTION	I/O
124	B25	PORTH1/TXD[0]	SIGNAL	TZD_PW	UART TXD	O
211	C21	PORTH2	SIGNAL	SCL1	IIC Bus SCL1	I/O
294	D21	PORTH3	SIGNAL	SDA1	IIC Bus SDA1	I/O
290	D17	PORTH4	SIGNAL	IIC Bus SCL2	IIC Bus SCL2	I/O
208	C18	PORTH5	SIGNAL	SDA2	IIC Bus SDA2	I/O
293	D20	PORTH6	SOG MUX input Ch1	SCL0	IIC Bus SCL0	I/O
212	C22	PORTH7	SOG MUX input Ch0	SDA0	IIC Bus SDA0	I/O
296	D23	PORTI6	OPTION	XE50/XL50	XE50/XL50 Model Detect XE50 : L	I
205	C15	PORTI7	-	PW_DE	Data Enable	O
40	A10	PWM0	-	-	Not used	-
284	D11	PWM1	-	-	Not used	-
109	B10	PWM2	-	-	Not used	-
200	C10	PWM3	-	-	Not used	-
215	D24	ADC0	P_FAIL	P-FAIL	Power Failure Signal Input Failure : L	I
28	C26	ADC1	KEY	KEY1	Key Control Input	I
126	D25	ADC2	KEY	KEY2	Key Control Input	i
216	E24	ADC3	KET	KEY3	Key Control Input	i
298	F23	ADC4	OPTION	BRAND_OPTION	Option Switch BRAND	I
370	E22	ADC5	-	-	Not Used	-
29	D26	ADC6	OPTION	LAMP_OPTION	Lamp Option	I
127	E25	ADC7	ALARM	BATT	Alarm	I

IIC Bus D/A Converter Port Functions (M62334)

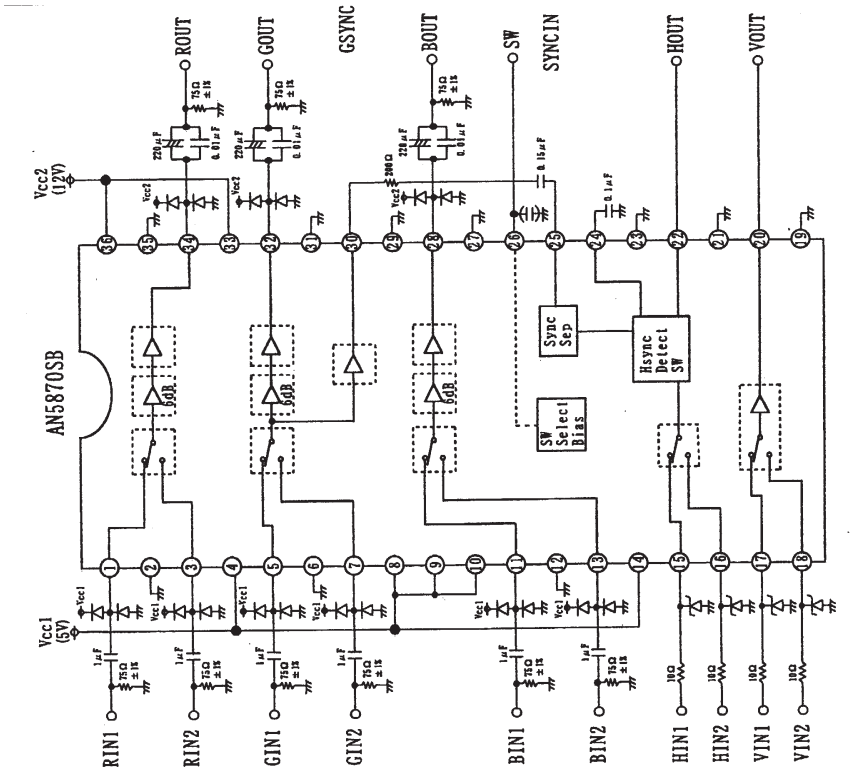
PIN	PORT	NAME	DESCRIPTION	I/O
1	A1	FAN_CON_A	Fan Control Analog Output	AO
2	A2	FAN_CON_B	Fan Control Analog Output	AO
3	A3	FAN_CON_C	Fan Control Analog Output	AO
4	A4	NOT USED	-	AO
5	GND	GND	-	-
6	SDA	SDA	IIC BUS SDA(5V)	I/O
7	SCL	SCL	IIC BUS SCL(5V)	I/O
8	Vcc	Vcc	-	-

Waveform

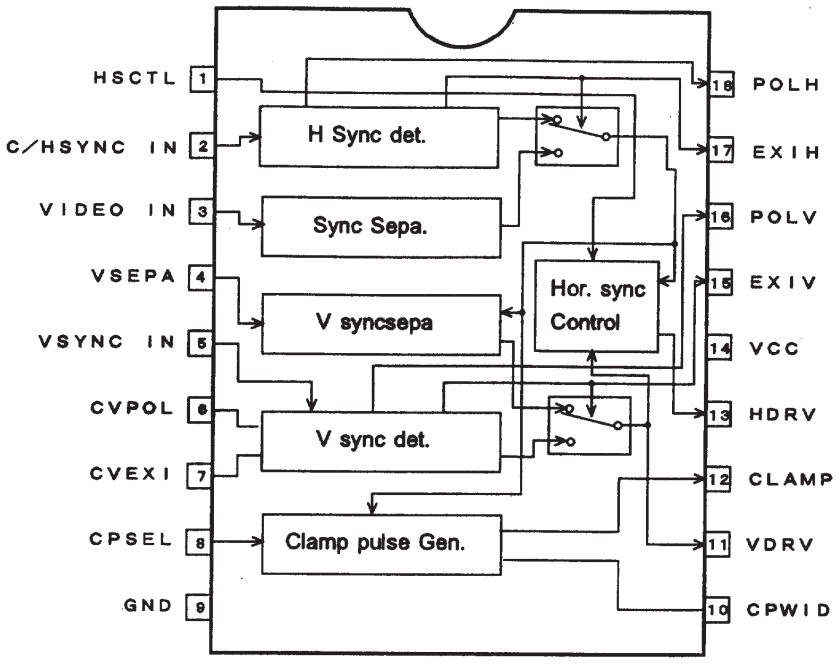
VIDEO signal <VIDEO>	HSYNC signal	VSYNC signal
		
HSYNC signal <TPDHS>	**VSYNC signal <TPDVS>**	
		
R-S&H signal <TP35R>	**G-S&H signal <TP35G>**	**B-S&H signal <TP35B>**
		

IC Block Diagrams

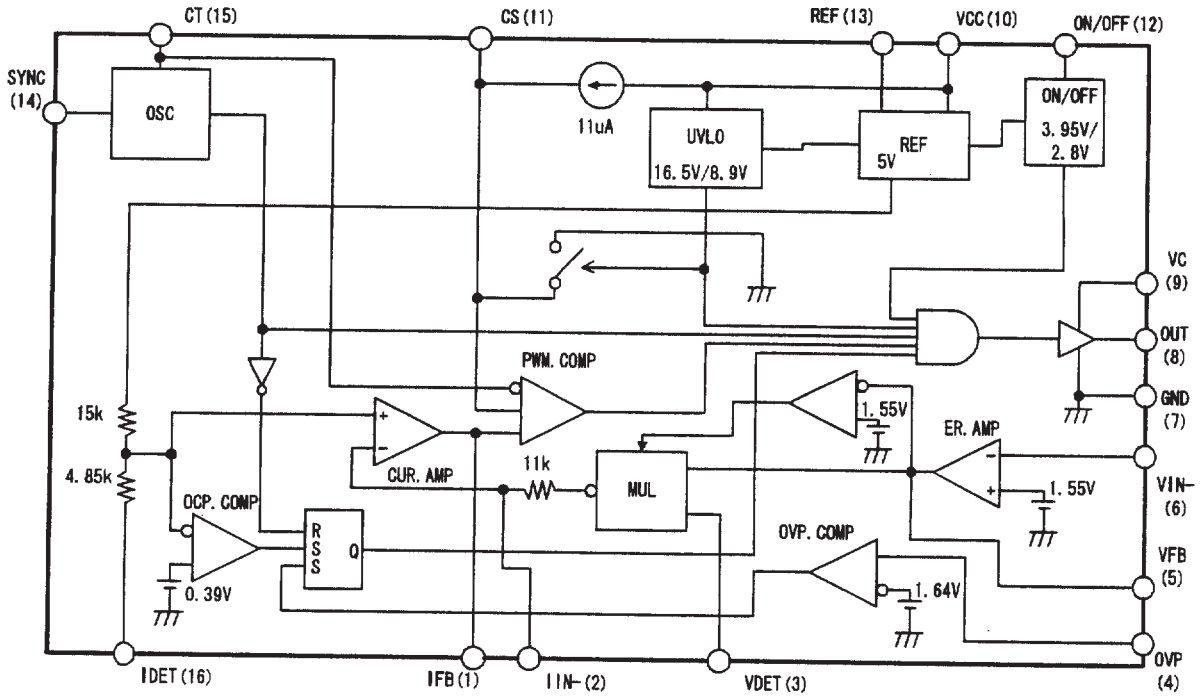
● AN5870 <Signal Switch, IC5201>



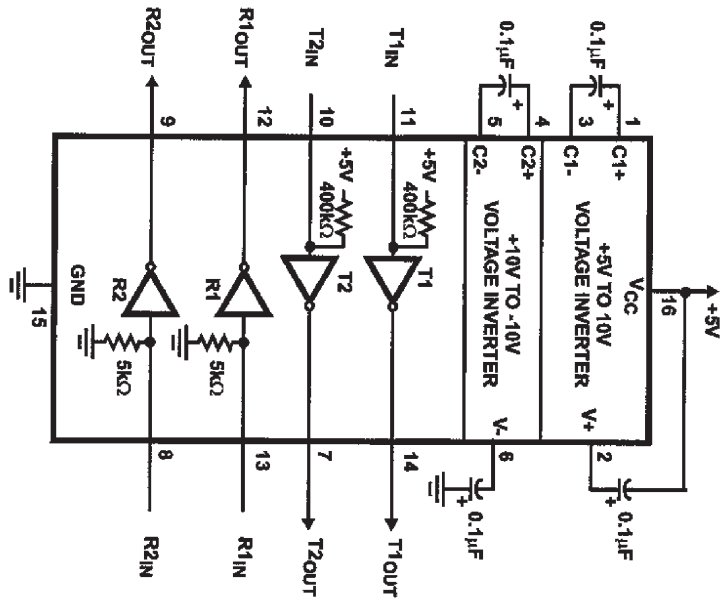
● BA7078 <Sync Separator, IC5301>



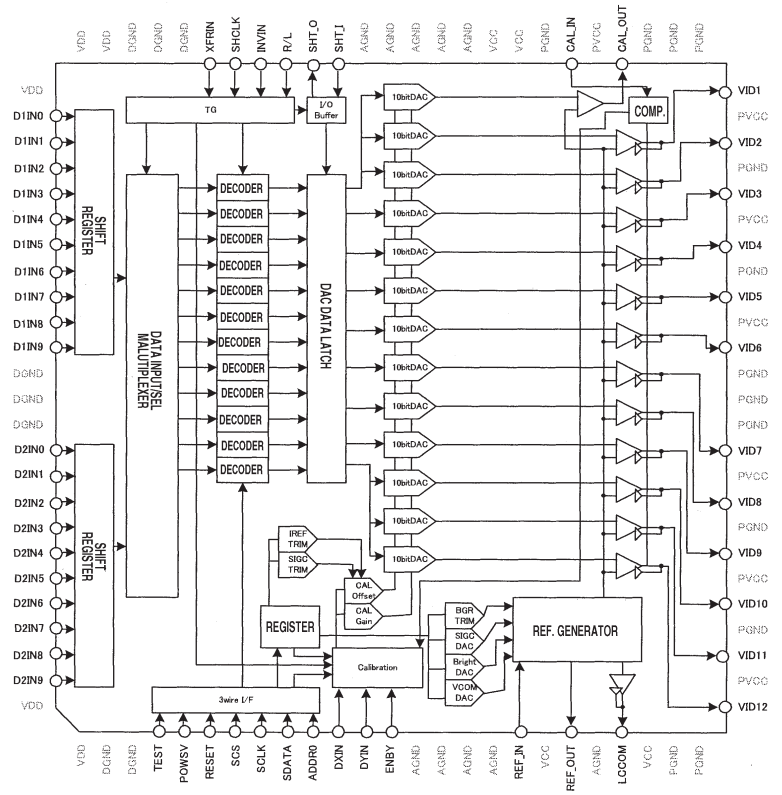
● FA5502 <P.F. Control, IC601>



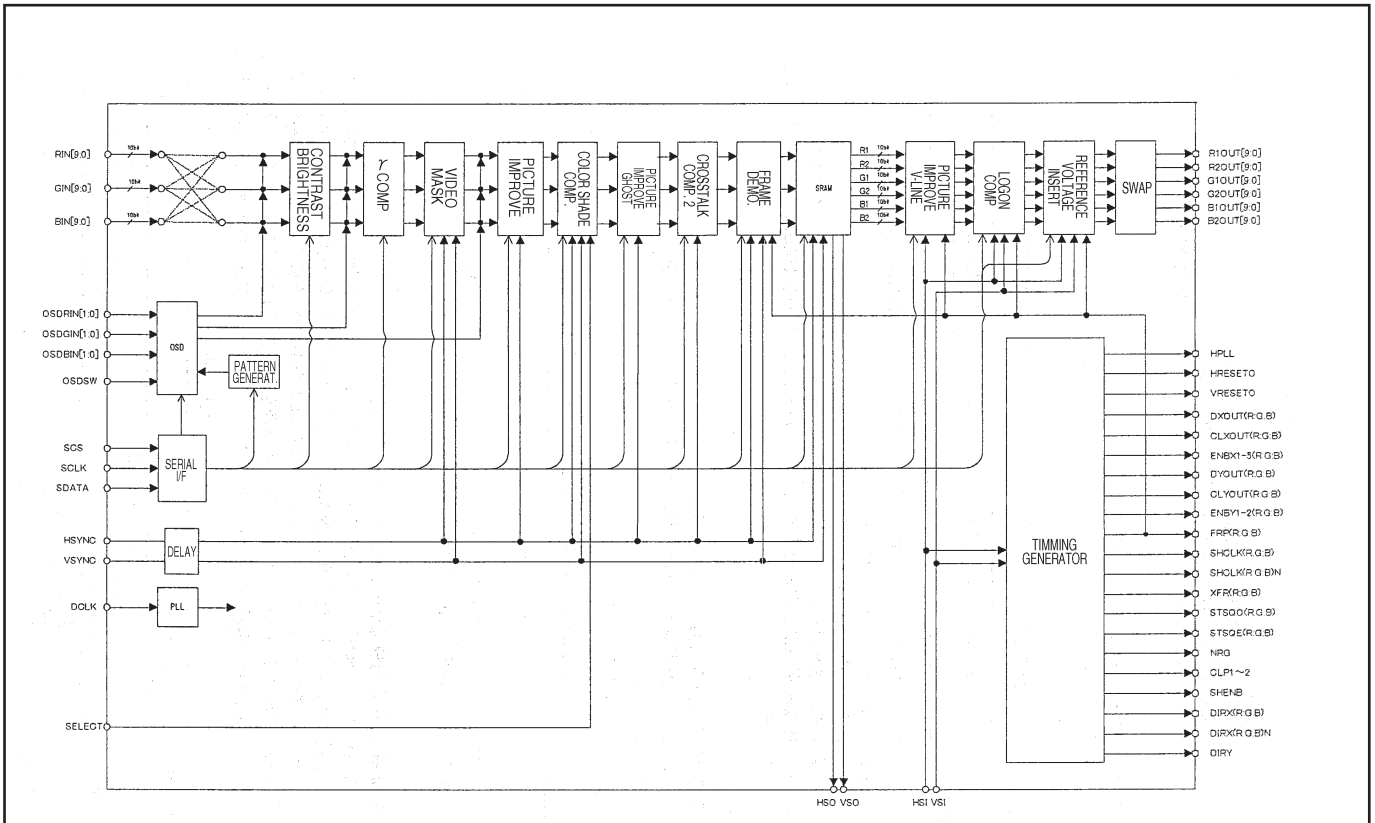
● HIN202EIB <RS-232C Driver, IC3801>



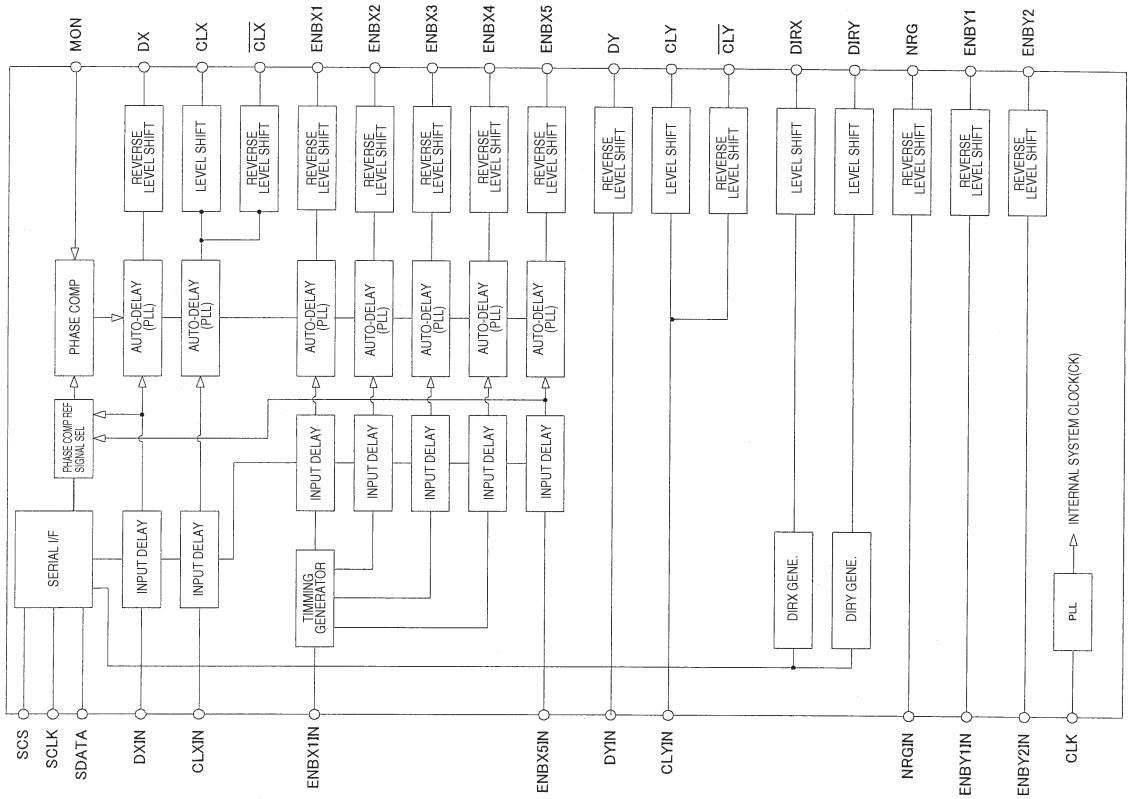
● L3E06150 <D/A, S/H-LCD Driver, IC501, IC531, IC561>



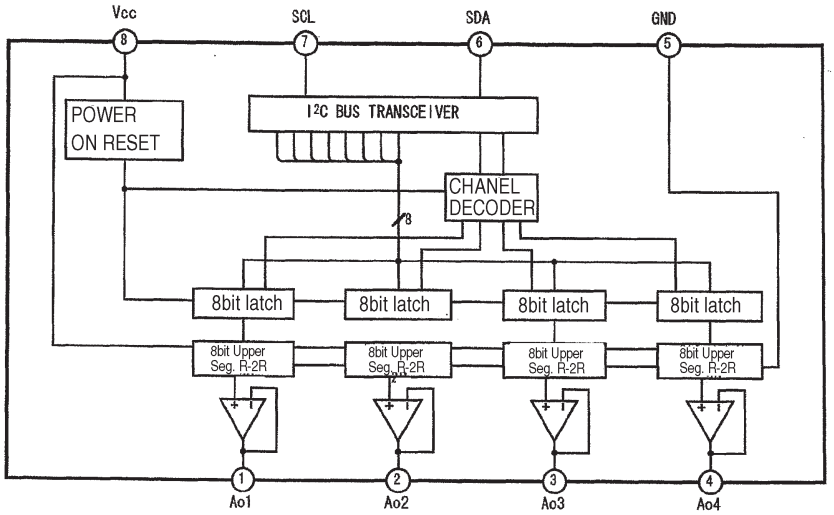
● L3E07110 <LCD Driver & Gamma Correction, IC401>



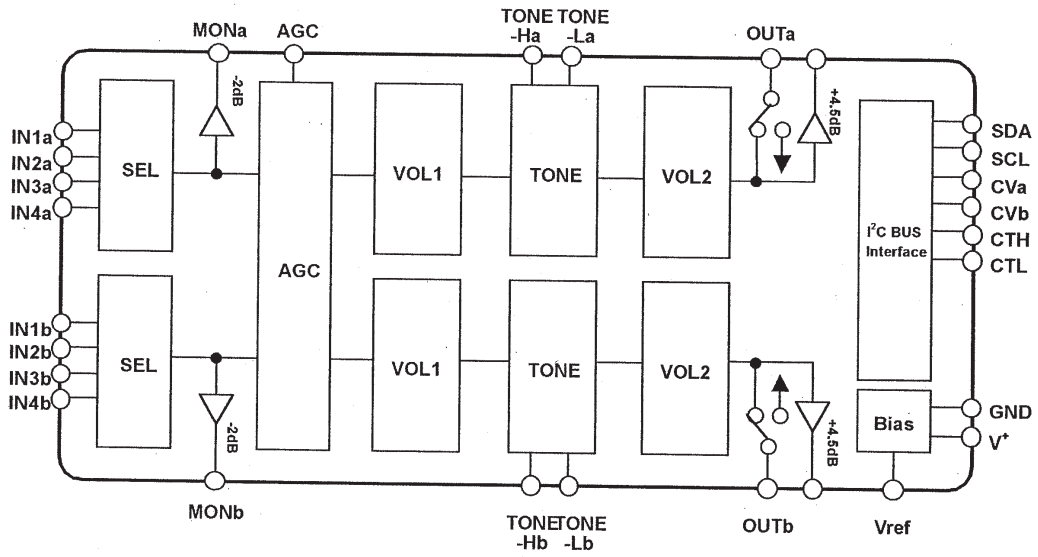
● L3E01060 <Level Shift, IC2501, IC2531, IC2561>



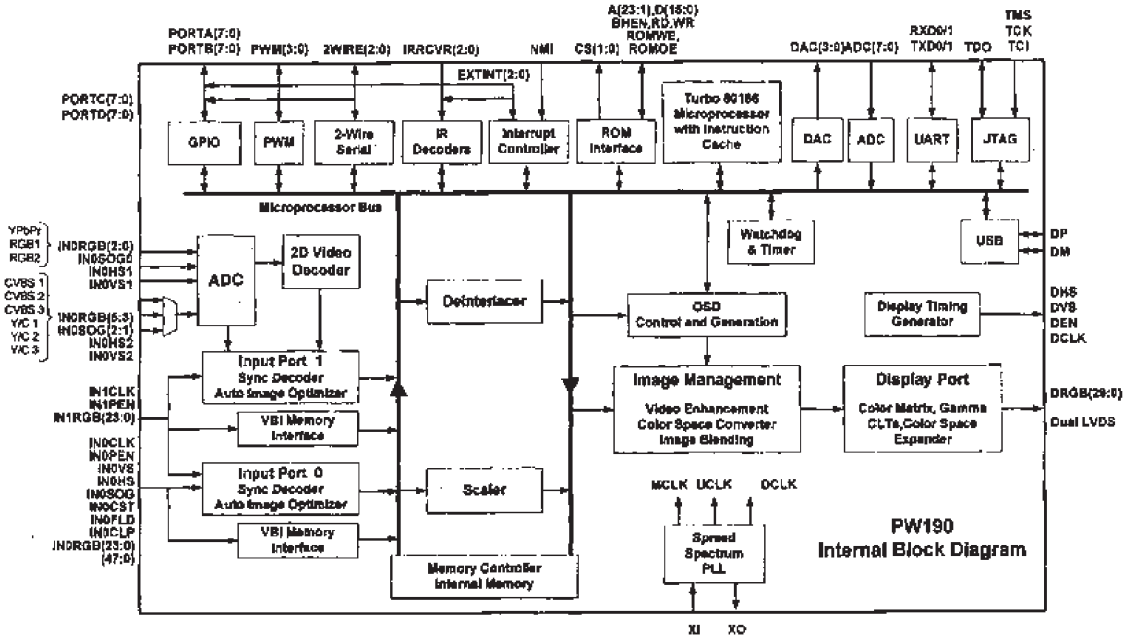
● M62334 <DAC, IC3501>



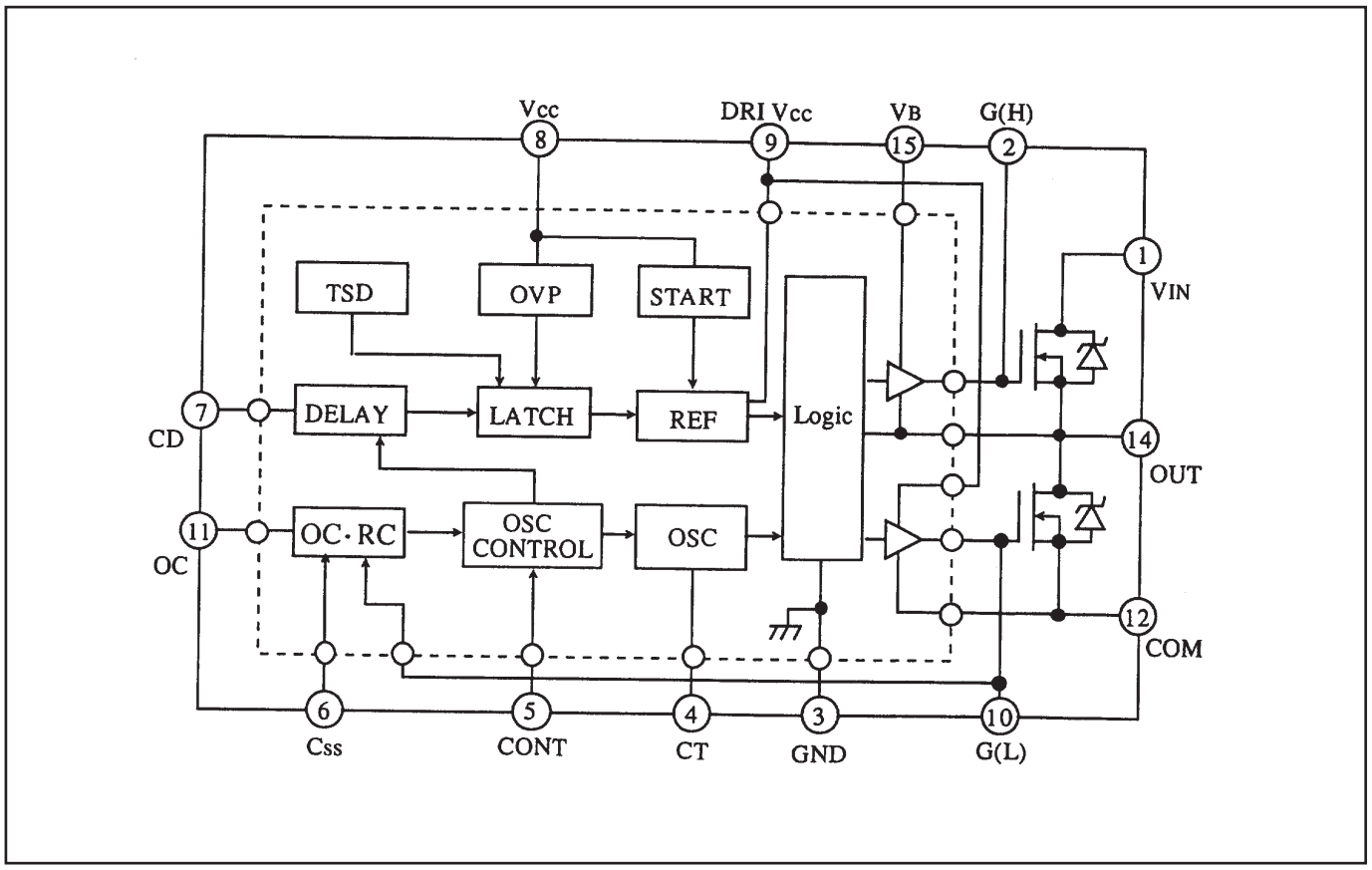
● NJW1141 <Audio Control, IC5001>



● PW190 <Scaler, IC301>



● STR-Z2156<Power OSC, IC651>



Electrical Parts List

Product safety should be considered when a component replacement is made in any area of a projector.
Components indicated by a ⚠ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

● Read Description in the parts list

Read description in the Capacitor and Resistor as follows:

CAPACITOR CERAMIC 100P K 50V

- 50V — Rated Voltage
- K — Tolerance Symbols:

Less than 10pF

A : Not specified	B : ±0.1pF	C : ±0.25pF
D : ±0.5pF	E : +0 -1pF	F : ±1PF
G : ±2pF	H : +0.1 -0pF	L : +0 -0.1pF
R : ±0.25 -0pF	S : +0-0.25pF	

More than 10pF

A : Not specified	B : ±0.1%	C : ±0.25%
D : ±0.5%	F : ±1%	G : ±2%
H : ±3%	J : ±5%	K : ±10%
L : ±15%	M : ±20%	N : ±30%
P : +100-0%	Q : +30-10%	T : +50-10%
U : +75-10%	V : +20-10%	W : +100-10%
X : +40-20%	Y : +150-10%	Z : +80-20%

- 100P — Rated value: P=pico farad, U=micro farad
- CERAMIC — Material:

CERAMIC	Ceramic
MT-PAPER	Metallized Paper
POLYESTER	Polyester
MT-POLYEST	Metallized Polyester
POLYPRO	Polypropylene
MT-POLYPRO	Metallized Polypropylene
COMPO FILM	Composite film
MT-COMPO	Metallized Composite
STYRENE	Styrene
TA-SOLID	Tantalum Oxide Solid Electrolytic
AL-SOLID	Aluminium Solid Electrolytic
ELECT	Aluminum Foil Electrolytic
NP-ELECT	Non-polarised Electrolytic
OS-SOLID	Aluminium Solid with Organic Semiconductive Electrolytic
POS-SOLID	Polymerized Organic Semiconductive
DL-ELECT	Double Layered Electrolytic
PPS-FILM	Polyphenylene Sulfide Film
MT-PPS-FILM	Metalized Polyphenylene Sulfide Film
MT-PEN-FILM	Metalized Polyethylenenaphthalate Film
CAPACITOR	Other

RESISTOR CARBON 4.7K J A 1/4W

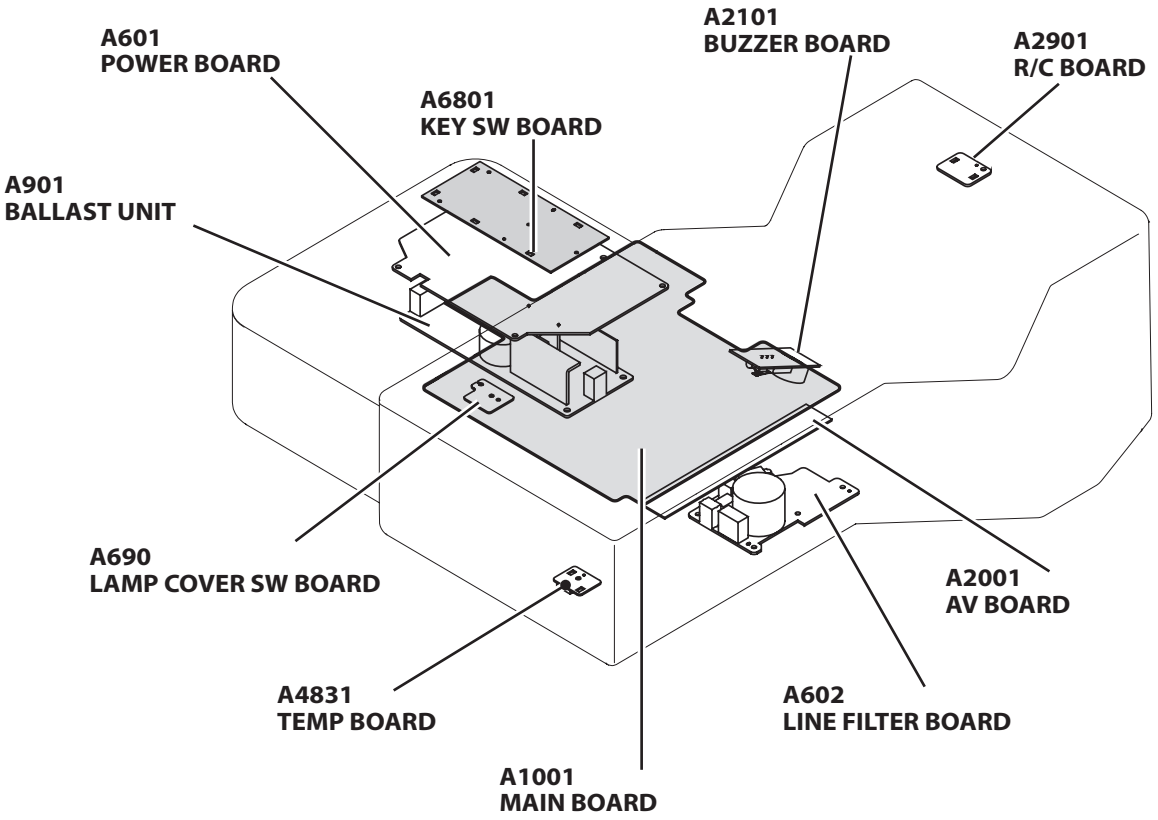
- 1/4W — Rated Wattage
- A — Performance Symbols:
  A: General B: Non flammable Z: Low noise
  Other: Temperature coefficient

T: ±10ppm/°C	U: ±25ppm/°C	C: ±50ppm/°C
D: ±100ppm/°C	E: ±200ppm/°C	F: ±250ppm/°C
G: ±350ppm/°C	H: ±1000ppm/°C±10%	W: ±1200ppm/°C±10%
Y: ±1400ppm/°C±10%	J: ±2000ppm/°C±10%	K: ±2400ppm/°C±10%
L: ±2700ppm/°C±10%	M: ±3000ppm/°C±10%	N: ±3300ppm/°C±10%
P: ±3600ppm/°C±10%	Q: ±3900ppm/°C±10%	R: ±4200ppm/°C±10%
S: ±4300ppm/°C±10%	V: ±4500ppm/°C±10%	X: ±8000ppm/°C±10%

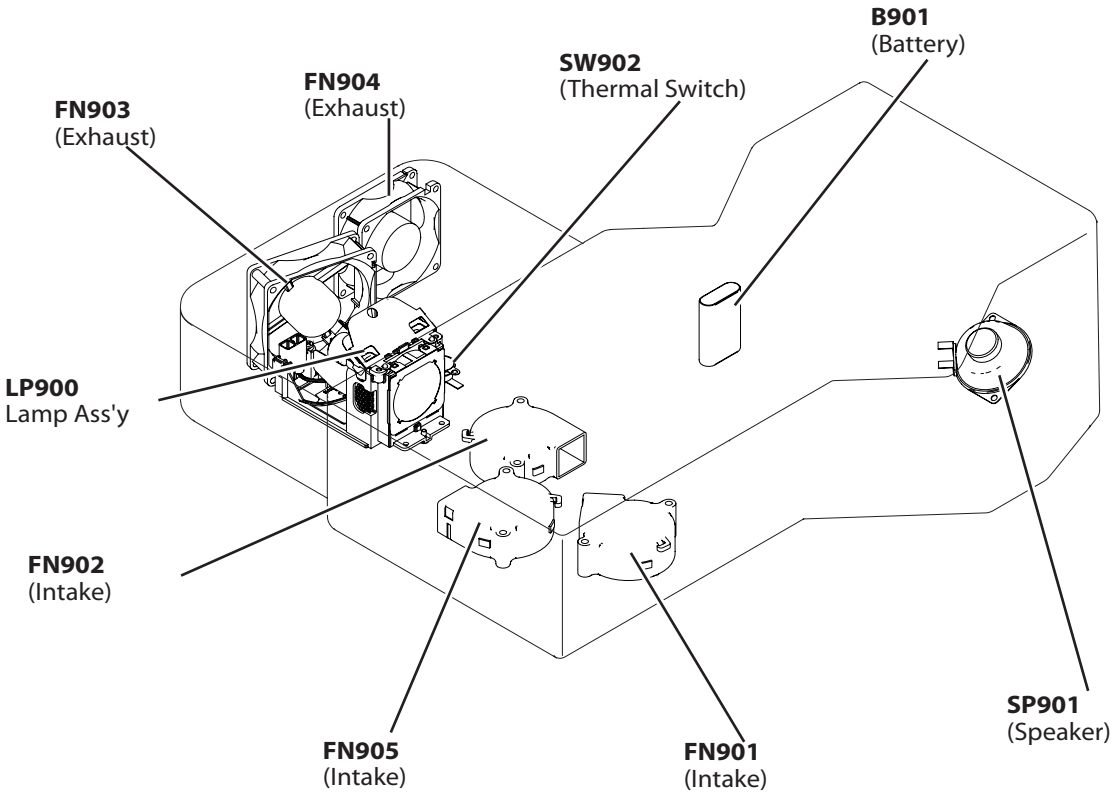
- J — Tolerance Symbols:
  A: ±0.05% B: ±0.1% C: ±0.25% D: ±0.5%
  F: ±1% G: ±2% J: ±5% K: ±10%
  M: ±20% P: +5-15% Z: 0 ohm
- 4.7K — Rated value, ohms:
  K: 1,000, M: 1,000,000
- CARBON — Material:

CARBON	Carbon
MT-FILM	Metal Film
OXIDE-MT	Oxide Metal Film
SOLID	Composition
MT-GLAZE	Metal Glaze
WIRE WOUND	Wire Wound
CERAMIC RES.	Ceramic
FUSIBLE RES.	Fusible
RESISTOR	Other

● **Assemblied Board**



● **Out of Circuit Board**



Key. No.	Part No.	Description

Assemblied Board

⚠	610 335 8161	ASSY,PWB,AV KL3A
⚠	610 335 7867	ASSY,PWB,BUZZER KL3A
⚠	610 335 7904	ASSY,PWB,R/C KL3A
⚠	610 335 7898	ASSY,PWB,LAMP COVER SW. KL3A
⚠	610 335 8239	ASSY,PWB,TEMP KL3A
⚠	610 337 2716	ASSY,PWB,MAIN KM3A
⚠	610 337 2723	ASSY,PWB,KEY SW. KM3A
⚠	610 335 7843	ASSY,PWB,POWER KL3A
⚠	610 335 7812	ASSY,PWB,LINE FILTER KL3A

Out of Circuit Board

L901	945 023 4959	CORE,CLAMP
L902	945 023 4959	CORE,CLAMP
⚠LP900	610 337 9937	COMPL,OPTICAL LAMP KM3A
⚠B901	645 089 8587	BATTERY,RECHARGE,COMP.
⚠FN901	645 094 1054	MOTOR,BLW DC 3.96W
⚠FN902	645 094 1030	MOTOR,BLW DC 3.96W
⚠FN903	645 094 1023	MOTOR,FAN DC 2.40W
⚠FN904	645 093 1710	MOTOR,FAN DC 2.40W
⚠FN905	645 094 1047	MOTOR,BLW DC 3.96W
⚠SP901	945 047 7585	SPEAKER,8
⚠SW902	945 048 3159	SWITCH,THERMAL(100DEG)
⚠A901	610 336 8849	UNIT,BALLAST+CV

610 335 8161 ASSY,PWB,AV KL3A

CAPACITOR		
C2001	303 358 3215	CERAMIC 10U K 6.3V
C2011	303 409 3426	CERAMIC 0.1U K 16V
C2021	303 358 3215	CERAMIC 10U K 6.3V
C2031	303 409 3426	CERAMIC 0.1U K 16V
C2051	303 397 8219	CERAMIC 2.2U K 25V
C2052	303 397 8219	CERAMIC 2.2U K 25V
C3001	303 397 8219	CERAMIC 2.2U K 25V
C3011	303 397 8219	CERAMIC 2.2U K 25V
C3021	303 294 6110	CERAMIC 100P J 50V
C3031	303 294 6110	CERAMIC 100P J 50V
RESISTOR		
R2001	301 260 4115	MT-GLAZE 75 JA 1/3W
R2011	301 260 4115	MT-GLAZE 75 JA 1/3W
R2021	301 260 4115	MT-GLAZE 75 JA 1/3W
R2031	301 224 8814	MT-GLAZE 100 JA 1/16W
R2036	301 225 8110	MT-GLAZE 10 JA 1/16W
R2037	301 225 8110	MT-GLAZE 10 JA 1/16W
R2038	301 225 8110	MT-GLAZE 10 JA 1/16W
R2051	301 224 8913	MT-GLAZE 100K JA 1/16W
R2052	301 224 8814	MT-GLAZE 100 JA 1/16W
R2053	301 225 1418	MT-GLAZE 47K JA 1/16W
R2054	301 224 8913	MT-GLAZE 100K JA 1/16W
R2056	301 224 8814	MT-GLAZE 100 JA 1/16W
R2057	301 225 1418	MT-GLAZE 47K JA 1/16W
R3001	301 224 8913	MT-GLAZE 100K JA 1/16W
R3003	301 224 8814	MT-GLAZE 100 JA 1/16W
R3011	301 224 8913	MT-GLAZE 100K JA 1/16W
R3013	301 224 8814	MT-GLAZE 100 JA 1/16W
R3021	301 224 8913	MT-GLAZE 100K JA 1/16W
R3022	301 224 8814	MT-GLAZE 100 JA 1/16W
R3031	301 224 8913	MT-GLAZE 100K JA 1/16W
R3032	301 224 8814	MT-GLAZE 100 JA 1/16W
COIL		
L2001	945 068 8318	FILTER,EMI 100MHZ
L2011	945 086 7461	FILTER,EMI 100MHZ
L2021	945 086 7461	FILTER,EMI 100MHZ
L2031	945 086 7461	FILTER,EMI 100MHZ
L2051	945 068 8325	FILTER,EMI 20MHZ
L2052	945 068 8325	FILTER,EMI 20MHZ
L3001	945 068 8325	FILTER,EMI 20MHZ
L3011	945 068 8325	FILTER,EMI 20MHZ
L3021	945 068 8325	FILTER,EMI 20MHZ
L3031	945 068 8325	FILTER,EMI 20MHZ
DIODE		
D2031	307 223 0514	ZENER DIODE 02DZ12Y(TPH3)
MISCELLANEOUS		
K20A	645 089 9041	SOCKET,DIN 4P
K20B	945 068 3740	JACK,RCA-3
K40A	945 006 4792	JACK,PHONE D3.6
K40B	945 006 4792	JACK,PHONE D3.6
SC2001	945 076 3503	SURGE-ABSORBER
SC2011	945 076 3503	SURGE-ABSORBER
SC2021	945 076 3503	SURGE-ABSORBER
SC2031	945 076 3503	SURGE-ABSORBER
SC2051	945 076 3503	SURGE-ABSORBER
SC2052	945 076 3503	SURGE-ABSORBER
SC3001	945 076 3503	SURGE-ABSORBER
SC3011	945 076 3503	SURGE-ABSORBER
SC3021	945 076 3503	SURGE-ABSORBER
SC3031	945 076 3503	SURGE-ABSORBER
SC8751	945 076 3503	SURGE-ABSORBER
SC8752	945 076 3503	SURGE-ABSORBER
SC8753	945 076 3503	SURGE-ABSORBER
SC8754	945 076 3503	SURGE-ABSORBER
SW8751	910 011 4433	SWITCH,PUSH
SW8752	910 011 4433	SWITCH,PUSH
SW8753	910 011 4433	SWITCH,PUSH
SW8754	910 011 4433	SWITCH,PUSH

610 335 7867 ASSY,PWB,BUZZER KL3A

RESISTOR		
R2100	301 255 6513	MT-GLAZE 100 JA 1/10W
R8731	301 150 5918	MT-GLAZE 10K JA 1/10W
MISCELLANEOUS		
IC2100	420 002 2602	PZ BZR PKM22EPPH4012
IC8710	945 081 3857	SWITCH,SENSOR 2P-2T
SW2100	945 063 5176	SWITCH,PUSH 2P-2TX3

610 335 7904 ASSY,PWB,R/C KL3A

CAPACITOR		
C2901	303 433 1112	CERAMIC 1U K 10V
C2902	303 282 5118	CERAMIC 470P K 50V
C2903	303 380 0114	CERAMIC 47U M 6.3V
RESISTOR		
R2901	301 225 1814	MT-GLAZE 47 JA 1/16W
R2902	301 224 8814	MT-GLAZE 100 JA 1/16W
MISCELLANEOUS		
A2901	945 084 1997	UNIT,REMOCON RECEIVER

610 335 7898 ASSY,PWB,LAMP COVER SW. KL3A

SW901	945 063 5176	SWITCH,PUSH 2P-2TX3

610 335 8239 ASSY,PWB,TEMP KL3A

CAPACITOR		
C4831	303 276 3113	CERAMIC 33P J 50V
C4832	303 276 3113	CERAMIC 33P J 50V
C4833	303 409 3426	CERAMIC 0.1U K 16V
C4834	303 379 6714	CERAMIC 10U K 16V
RESISTOR		
R4831	301 225 8110	MT-GLAZE 10 JA 1/16W
R4832	301 225 8110	MT-GLAZE 10 JA 1/16W
R4833	301 224 9019	MT-GLAZE 10K JA 1/16W

610 337 2716 ASSY,PWB,MAIN KM3A

TRANSISTOR		
Q1051	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q1061	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E

Key. No.	Part No.	Description
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q1071	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q1371	305 217 8515	TR RSQ025P03-TR
Q1801	305 191 5814	TR 3LN01C-TB-E
Q1802	305 191 5814	TR 3LN01C-TB-E
Q1803	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q2001	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q2011	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q2021	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q2071	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q2076	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q2081	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q2091	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q2092	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q3581	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q3582	305 002 8327	TR 2SA1203-Y-TE12L

Key. No.	Part No.	Description
Q3601	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q3801	305 191 5814	TR 3LN01C-TB-E
Q4001	305 166 3210	TR RN1113-TE85L
Q4011	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q4012	305 166 3210	TR RN1113-TE85L
Q4021	305 217 4913	TR RN1111 TE85L
Q5031	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5032	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5041	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5042	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5061	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5062	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5063	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5064	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5201	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5202	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S

Key. No.	Part No.	Description
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5281	305 217 4913	TR RN1111 TE85L
Q5282	305 217 5217	TR RN1110 TE85L
Q5283	305 217 5217	TR RN1110 TE85L
Q5284	305 217 4913	TR RN1111 TE85L
Q5286	305 217 4913	TR RN1111 TE85L
Q5287	305 217 4913	TR RN1111 TE85L
Q5288	305 166 3210	TR RN1113-TE85L
Q5301	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5302	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q5303	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q5304	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5331	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5332	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q5333	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q5334	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q5336	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q5651	305 217 8515	TR RSQ025P03-TR
Q5701	305 217 5019	TR RN1117 TE85L
Q5702	305 217 5019	TR RN1117 TE85L
Q6201	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q6211	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S

Key. No.	Part No.	Description
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q683	305 047 9010	TR 2SB1204-S-TL
Q684	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q6841	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q6842	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q6843	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q6844	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q6846	305 002 8327	TR 2SA1203-Y-TE12L
Q6847	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q7801	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q7841	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q7871	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q7891	305 217 5019	TR RN1117 TE85L
Q7892	305 217 5019	TR RN1117 TE85L
Q8701	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q8702	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB

Key. No.	Part No.	Description
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q8751	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q8752	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q8753	305 191 5814	TR 3LN01C-TB-E
Q8754	305 191 5814	TR 3LN01C-TB-E
Q8756	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q8757	305 191 5814	TR 3LN01C-TB-E
Q8758	305 191 5814	TR 3LN01C-TB-E
Q8759	305 191 5814	TR 3LN01C-TB-E
Q9602	406 021 3301	TR XP162A12A6PR
Q9641	305 217 8515	TR RSQ025P03-TR
Q9642	305 217 8515	TR RSQ025P03-TR
Q9643	405 219 1610	TR RTQ020N03-TR
Q9644	305 191 5814	TR 3LN01C-TB-E
Q9881	305 191 5814	TR 3LN01C-TB-E
INTEGRATED CIRCUIT		
IC1302	310 479 4004	IC TC7WBD125AFK
IC1303	310 479 4004	IC TC7WBD125AFK
IC1351	410 643 5100	IC PQ070XNB1ZPH
IC1361	410 643 5100	IC PQ070XNB1ZPH
IC1371	309 531 6229	IC FA7701V-TE1
IC1381	309 553 4712	IC PQ070XZ02ZP
IC1391	310 538 4907	IC 24LC64T-I/SNG
IC1401	309 553 4712	IC PQ070XZ02ZP
IC1411	410 642 7303	IC PQ015YZ01ZPH
IC301	309 670 8419	IC PW190-10L
IC302	309 487 5727	IC TC7SZ125FU
IC303	309 487 5727	IC TC7SZ125FU
IC3501	309 431 4424	IC M62334FP-DF5Q
IC3801	309 652 0714	IC HIN202EIBNZ-T
	309 565 9613	IC SP232AEN-L
IC4011	310 358 1506	IC TC74HC4053AFT(EL)
IC402	309 487 5727	IC TC7SZ125FU
IC4021	310 348 7501	IC TC7WT241FU(TE12L)
IC4891	309 404 7213	IC TC7SET00FU-(TE85L)
IC5001	309 564 1519	IC NJW1141M
IC5041	310 405 9301	IC TDA7056AT/N2
IC5201	309 530 7217	IC AN5870SB-E1V
IC5301	309 484 2016	IC BA7078AF-E2
IC5302	309 439 8919	IC TC7WH125FU
IC5621	410 643 5100	IC PQ070XNB1ZPH
IC5641	309 431 2311	IC BA12FP-E2
IC5642	309 531 6229	IC FA7701V-TE1
IC5701	309 461 7822	IC PQ20WZ11
IC6201	309 462 0327	IC 24LC21AT/SN
IC6202	310 517 6809	IC TC74LVX4053FT
IC6211	309 462 0327	IC 24LC21AT/SN
IC6212	310 517 6809	IC TC74LVX4053FT
IC7201	410 631 4504	IC EP2C5F256C8N
IC7261	410 643 5100	IC PQ070XNB1ZPH
IC7271	410 643 5100	IC PQ070XNB1ZPH
IC7281	309 439 8919	IC TC7WH125FU
IC7282	309 439 8919	IC TC7WH125FU
IC7801	309 461 7822	IC PQ20WZ11
IC7821	309 461 7822	IC PQ20WZ11
IC7841	309 461 7822	IC PQ20WZ11
IC7861	309 461 7822	IC PQ20WZ11
IC7871	309 461 7822	IC PQ20WZ11
IC801	410 646 4902	IC S29GL064A90TFIR30-0830
IC841	310 616 3402	IC PST413A300NR
IC8701	410 636 2109	IC R5F21134FP-C849B
IC8702	309 137 9010	IC TC4S81F-TE85R
IC8703	309 155 7329	IC TC4S71F-TE85R

Key. No.	Part No.	Description
IC8708	310 596 5205	IC S-1000C27-M5T1G
IC8712	309 482 3817	IC NJM2360AM(TE2)
IC891	310 337 0605	IC HD74LVC14T
IC9603	309 074 9626	IC M51957BFP
IC9882	309 464 1411	IC TC74ACT14FT
CAPACITOR		
C1041	303 409 3426	CERAMIC 0.1U K 16V
C1091	303 409 3426	CERAMIC 0.1U K 16V
C1300	303 409 3426	CERAMIC 0.1U K 16V
C1301	303 409 3426	CERAMIC 0.1U K 16V
C1331	303 305 8515	CERAMIC 15P J 50V
C1332	303 305 8515	CERAMIC 15P J 50V
C1351	303 433 1112	CERAMIC 1U K 10V
C1352	303 358 3215	CERAMIC 10U K 6.3V
C1361	303 433 1112	CERAMIC 1U K 10V
C1362	303 358 3215	CERAMIC 10U K 6.3V
C1371	303 409 3426	CERAMIC 0.1U K 16V
C1372	303 409 3426	CERAMIC 0.1U K 16V
C1373	303 379 7315	CERAMIC 4700P K 50V
C1376	303 433 1112	CERAMIC 1U K 10V
C1377	303 394 9318	ELECT 220U M 6.3V
	303 387 5112	ELECT 220U M 6.3V
C1378	303 394 9318	ELECT 220U M 6.3V
	303 387 5112	ELECT 220U M 6.3V
C1379	303 409 3426	CERAMIC 0.1U K 16V
C1381	303 306 6510	CERAMIC 8200P K 50V
C1382	303 409 3426	CERAMIC 0.1U K 16V
C1383	303 433 1112	CERAMIC 1U K 10V
C1384	303 394 1312	ELECT 100U M 6.3V
	303 387 4917	ELECT 100U M 6.3V
C1391	303 409 3426	CERAMIC 0.1U K 16V
C1401	303 433 1112	CERAMIC 1U K 10V
C1402	303 394 1312	ELECT 100U M 6.3V
	303 387 4917	ELECT 100U M 6.3V
C1403	303 392 1215	ELECT 47U M 6.3V
	303 387 5310	ELECT 47U M 6.3V
C1411	303 433 1112	CERAMIC 1U K 10V
C1412	303 409 3426	CERAMIC 0.1U K 16V
C1413	303 394 1312	ELECT 100U M 6.3V
	303 387 4917	ELECT 100U M 6.3V
C1511	303 276 1911	CERAMIC 22P J 50V
C1512	303 276 1911	CERAMIC 22P J 50V
C1513	303 276 1911	CERAMIC 22P J 50V
C1514	303 276 1911	CERAMIC 22P J 50V
C1516	303 276 1911	CERAMIC 22P J 50V
C1517	303 276 1911	CERAMIC 22P J 50V
C1518	303 276 1911	CERAMIC 22P J 50V
C1519	303 276 1911	CERAMIC 22P J 50V
C1521	303 276 1911	CERAMIC 22P J 50V
C1522	303 276 1911	CERAMIC 22P J 50V
C1523	303 276 1911	CERAMIC 22P J 50V
C1524	303 276 1911	CERAMIC 22P J 50V
C1526	303 276 1911	CERAMIC 22P J 50V
C1527	303 276 1911	CERAMIC 22P J 50V
C1528	303 276 1911	CERAMIC 22P J 50V
C1529	303 276 1911	CERAMIC 22P J 50V
C1541	303 276 1911	CERAMIC 22P J 50V
C1542	303 276 1911	CERAMIC 22P J 50V
C1543	303 276 1911	CERAMIC 22P J 50V
C1544	303 276 1911	CERAMIC 22P J 50V
C1546	303 276 1911	CERAMIC 22P J 50V
C1547	303 276 1911	CERAMIC 22P J 50V
C1548	303 276 1911	CERAMIC 22P J 50V
C1549	303 276 1911	CERAMIC 22P J 50V
C1551	303 276 1911	CERAMIC 22P J 50V
C1552	303 276 1911	CERAMIC 22P J 50V
C1553	303 276 1911	CERAMIC 22P J 50V
C1554	303 276 1911	CERAMIC 22P J 50V
C1556	303 276 1911	CERAMIC 22P J 50V
C1557	303 276 1911	CERAMIC 22P J 50V
C1558	303 276 1911	CERAMIC 22P J 50V
C1559	303 276 1911	CERAMIC 22P J 50V
C1571	303 276 1911	CERAMIC 22P J 50V
C1572	303 276 1911	CERAMIC 22P J 50V
C1573	303 276 1911	CERAMIC 22P J 50V
C1574	303 276 1911	CERAMIC 22P J 50V
C1576	303 276 1911	CERAMIC 22P J 50V
C1577	303 276 1911	CERAMIC 22P J 50V
C1578	303 276 1911	CERAMIC 22P J 50V
C1579	303 276 1911	CERAMIC 22P J 50V
C1581	303 276 1911	CERAMIC 22P J 50V
C1582	303 276 1911	CERAMIC 22P J 50V

Key. No.	Part No.	Description
C1583	303 276 1911	CERAMIC 22P J 50V
C1584	303 276 1911	CERAMIC 22P J 50V
C1586	303 276 1911	CERAMIC 22P J 50V
C1587	303 276 1911	CERAMIC 22P J 50V
C1588	303 276 1911	CERAMIC 22P J 50V
C1589	303 276 1911	CERAMIC 22P J 50V
C1871	303 433 1112	CERAMIC 1U K 10V
C2002	303 409 3426	CERAMIC 0.1U K 16V
C2003	303 376 6311	CERAMIC 0.47U K 10V
C2012	303 409 3426	CERAMIC 0.1U K 16V
C2013	303 376 6311	CERAMIC 0.47U K 10V
C2022	303 409 3426	CERAMIC 0.1U K 16V
C2023	303 376 6311	CERAMIC 0.47U K 10V
C2071	303 409 3426	CERAMIC 0.1U K 16V
C2072	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
C2073	303 433 1112	CERAMIC 1U K 10V
C2076	303 433 1112	CERAMIC 1U K 10V
C2082	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
C2091	303 433 1112	CERAMIC 1U K 10V
C2092	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
C2093	303 409 3426	CERAMIC 0.1U K 16V
C2504	303 409 3426	CERAMIC 0.1U K 16V
C2505	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C2506	303 409 3426	CERAMIC 0.1U K 16V
C2507	303 409 3426	CERAMIC 0.1U K 16V
C2508	303 396 9613	CERAMIC 1U K 25V
	303 397 7618	CERAMIC 1U K 25V
C2509	303 409 3426	CERAMIC 0.1U K 16V
C2511	303 409 3426	CERAMIC 0.1U K 16V
C2512	303 433 1112	CERAMIC 1U K 10V
C2513	303 409 3426	CERAMIC 0.1U K 16V
C2514	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C2534	303 409 3426	CERAMIC 0.1U K 16V
C2535	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C2536	303 409 3426	CERAMIC 0.1U K 16V
C2537	303 409 3426	CERAMIC 0.1U K 16V
C2538	303 396 9613	CERAMIC 1U K 25V
	303 397 7618	CERAMIC 1U K 25V
C2539	303 409 3426	CERAMIC 0.1U K 16V
C2541	303 409 3426	CERAMIC 0.1U K 16V
C2542	303 433 1112	CERAMIC 1U K 10V
C2543	303 409 3426	CERAMIC 0.1U K 16V
C2544	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C2564	303 409 3426	CERAMIC 0.1U K 16V
C2565	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C2566	303 409 3426	CERAMIC 0.1U K 16V
C2567	303 409 3426	CERAMIC 0.1U K 16V
C2568	303 396 9613	CERAMIC 1U K 25V
	303 397 7618	CERAMIC 1U K 25V
C2569	303 409 3426	CERAMIC 0.1U K 16V
C2571	303 409 3426	CERAMIC 0.1U K 16V
C2572	303 433 1112	CERAMIC 1U K 10V
C2573	303 409 3426	CERAMIC 0.1U K 16V
C2574	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C2891	303 409 3426	CERAMIC 0.1U K 16V
C2892	303 305 8812	CERAMIC 47P J 50V
C301	303 409 3426	CERAMIC 0.1U K 16V
C302	303 449 1212	POS-SOLID 47U M 6.3V
C303	303 409 3426	CERAMIC 0.1U K 16V
C304	303 409 3426	CERAMIC 0.1U K 16V
C306	303 409 3426	CERAMIC 0.1U K 16V
C307	303 409 3426	CERAMIC 0.1U K 16V
C308	303 409 3426	CERAMIC 0.1U K 16V
C309	303 409 3426	CERAMIC 0.1U K 16V
C311	303 409 3426	CERAMIC 0.1U K 16V
C312	303 409 3426	CERAMIC 0.1U K 16V
C313	303 409 3426	CERAMIC 0.1U K 16V
C314	303 409 3426	CERAMIC 0.1U K 16V
C316	303 409 3426	CERAMIC 0.1U K 16V
C317	303 409 3426	CERAMIC 0.1U K 16V
C318	303 409 3426	CERAMIC 0.1U K 16V
C319	303 409 3426	CERAMIC 0.1U K 16V
C321	303 409 3426	CERAMIC 0.1U K 16V
C322	303 409 3426	CERAMIC 0.1U K 16V
C323	303 409 3426	CERAMIC 0.1U K 16V
C324	303 409 3426	CERAMIC 0.1U K 16V

Key. No.	Part No.	Description
C326	303 409 3426	CERAMIC 0.1U K 16V
C327	303 409 3426	CERAMIC 0.1U K 16V
C328	303 409 3426	CERAMIC 0.1U K 16V
C329	303 409 3426	CERAMIC 0.1U K 16V
C331	303 409 3426	CERAMIC 0.1U K 16V
C332	303 409 3426	CERAMIC 0.1U K 16V
C333	303 409 3426	CERAMIC 0.1U K 16V
C334	303 409 3426	CERAMIC 0.1U K 16V
C335	303 409 3426	CERAMIC 0.1U K 16V
C336	303 409 3426	CERAMIC 0.1U K 16V
C337	303 409 3426	CERAMIC 0.1U K 16V
C338	303 409 3426	CERAMIC 0.1U K 16V
C339	303 409 3426	CERAMIC 0.1U K 16V
C341	303 409 3426	CERAMIC 0.1U K 16V
C342	303 409 3426	CERAMIC 0.1U K 16V
C343	303 409 3426	CERAMIC 0.1U K 16V
C344	303 409 3426	CERAMIC 0.1U K 16V
C346	303 409 3426	CERAMIC 0.1U K 16V
C347	303 409 3426	CERAMIC 0.1U K 16V
C348	303 409 3426	CERAMIC 0.1U K 16V
C349	303 409 3426	CERAMIC 0.1U K 16V
C3500	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C3501	303 409 3426	CERAMIC 0.1U K 16V
C3502	303 367 0410	CERAMIC 0.1U K 50V
C3503	303 367 0410	CERAMIC 0.1U K 50V
C3504	303 409 3426	CERAMIC 0.1U K 16V
C3506	303 391 5115	ELECT 100U M 16V
	303 296 9515	ELECT 100U M 16V
C3508	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C3509	303 396 9613	CERAMIC 1U K 25V
	303 397 7618	CERAMIC 1U K 25V
C351	303 409 3426	CERAMIC 0.1U K 16V
C3511	303 409 3426	CERAMIC 0.1U K 16V
C3512	303 409 3426	CERAMIC 0.1U K 16V
C3513	303 409 3426	CERAMIC 0.1U K 16V
C3514	303 409 3426	CERAMIC 0.1U K 16V
C352	303 409 3426	CERAMIC 0.1U K 16V
C353	303 409 3426	CERAMIC 0.1U K 16V
C3530	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C3531	303 409 3426	CERAMIC 0.1U K 16V
C3532	303 367 0410	CERAMIC 0.1U K 50V
C3533	303 367 0410	CERAMIC 0.1U K 50V
C3534	303 409 3426	CERAMIC 0.1U K 16V
C3536	303 391 5115	ELECT 100U M 16V
	303 296 9515	ELECT 100U M 16V
C3538	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C3539	303 396 9613	CERAMIC 1U K 25V
	303 397 7618	CERAMIC 1U K 25V
C354	303 409 3426	CERAMIC 0.1U K 16V
C355	303 409 3426	CERAMIC 0.1U K 16V
C356	303 409 3426	CERAMIC 0.1U K 16V
C3560	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C3561	303 409 3426	CERAMIC 0.1U K 16V
C3562	303 367 0410	CERAMIC 0.1U K 50V
C3563	303 367 0410	CERAMIC 0.1U K 50V
C3564	303 409 3426	CERAMIC 0.1U K 16V
C3566	303 391 5115	ELECT 100U M 16V
	303 296 9515	ELECT 100U M 16V
C3568	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C3569	303 396 9613	CERAMIC 1U K 25V
	303 397 7618	CERAMIC 1U K 25V
C357	303 409 3426	CERAMIC 0.1U K 16V
C358	303 409 3426	CERAMIC 0.1U K 16V
C3581	303 394 1312	ELECT 100U M 6.3V
	303 387 4917	ELECT 100U M 6.3V
C359	303 409 3426	CERAMIC 0.1U K 16V
C361	303 433 1112	CERAMIC 1U K 10V
C362	303 433 1112	CERAMIC 1U K 10V
C3621	303 409 3426	CERAMIC 0.1U K 16V
C3622	303 409 3426	CERAMIC 0.1U K 16V
C3623	303 409 3426	CERAMIC 0.1U K 16V
C3624	303 409 3426	CERAMIC 0.1U K 16V
C3626	303 409 3426	CERAMIC 0.1U K 16V
C363	303 433 1112	CERAMIC 1U K 10V
C364	303 441 9810	CERAMIC 0.01U K 50V
C365	303 442 0519	CERAMIC 0.068U K 16V

Key. No.	Part No.	Description		
C366	303 409 3426	CERAMIC	0.1U K	16V
C367	303 409 3426	CERAMIC	0.1U K	16V
C368	303 409 3426	CERAMIC	0.1U K	16V
C369	303 409 3426	CERAMIC	0.1U K	16V
C370	303 441 9810	CERAMIC	0.01U K	50V
C371	303 409 3426	CERAMIC	0.1U K	16V
C372	303 441 9810	CERAMIC	0.01U K	50V
C374	303 442 0519	CERAMIC	0.068U K	16V
C376	303 442 0519	CERAMIC	0.068U K	16V
C377	303 409 3426	CERAMIC	0.1U K	16V
C378	303 409 3426	CERAMIC	0.1U K	16V
C379	303 409 3426	CERAMIC	0.1U K	16V
C3801	303 439 8412	CERAMIC	2.2U M	6.3V
C3802	303 439 8412	CERAMIC	2.2U M	6.3V
C3803	303 439 8412	CERAMIC	2.2U M	6.3V
C3804	303 439 8412	CERAMIC	2.2U M	6.3V
C3806	303 433 1112	CERAMIC	1U K	10V
C381	303 409 3426	CERAMIC	0.1U K	16V
C382	303 442 0519	CERAMIC	0.068U K	16V
C383	303 442 0519	CERAMIC	0.068U K	16V
C384	303 442 0519	CERAMIC	0.068U K	16V
C386	303 409 3426	CERAMIC	0.1U K	16V
C387	303 409 3426	CERAMIC	0.1U K	16V
C4001	303 382 7814	CERAMIC	2.2U K	10V
C4002	303 409 3426	CERAMIC	0.1U K	16V
C4003	303 382 7814	CERAMIC	2.2U K	10V
C4004	303 409 3426	CERAMIC	0.1U K	16V
C4006	303 409 3426	CERAMIC	0.1U K	16V
C401	303 433 1112	CERAMIC	1U K	10V
C4011	303 409 3426	CERAMIC	0.1U K	16V
C4012	303 409 3426	CERAMIC	0.1U K	16V
C4013	303 409 3426	CERAMIC	0.1U K	16V
C405	303 358 3215	CERAMIC	10U K	6.3V
C406	303 433 1112	CERAMIC	1U K	10V
C407	303 409 3426	CERAMIC	0.1U K	16V
C408	303 409 3426	CERAMIC	0.1U K	16V
C409	303 409 3426	CERAMIC	0.1U K	16V
C410	303 409 3426	CERAMIC	0.1U K	16V
C411	303 409 3426	CERAMIC	0.1U K	16V
C412	303 409 3426	CERAMIC	0.1U K	16V
C413	303 441 9810	CERAMIC	0.01U K	50V
C414	303 409 3426	CERAMIC	0.1U K	16V
C415	303 409 3426	CERAMIC	0.1U K	16V
C417	303 409 3426	CERAMIC	0.1U K	16V
C418	303 409 3426	CERAMIC	0.1U K	16V
C419	303 409 3426	CERAMIC	0.1U K	16V
C420	303 394 1312	ELECT	100U M	6.3V
	303 387 4917	ELECT	100U M	6.3V
C421	303 409 3426	CERAMIC	0.1U K	16V
C422	303 409 3426	CERAMIC	0.1U K	16V
C423	303 409 3426	CERAMIC	0.1U K	16V
C424	303 409 3426	CERAMIC	0.1U K	16V
C425	303 409 3426	CERAMIC	0.1U K	16V
C426	303 409 3426	CERAMIC	0.1U K	16V
C427	303 409 3426	CERAMIC	0.1U K	16V
C428	303 409 3426	CERAMIC	0.1U K	16V
C429	303 409 3426	CERAMIC	0.1U K	16V
C431	303 409 3426	CERAMIC	0.1U K	16V
C432	303 409 3426	CERAMIC	0.1U K	16V
C433	303 409 3426	CERAMIC	0.1U K	16V
C434	303 409 3426	CERAMIC	0.1U K	16V
C435	303 409 3426	CERAMIC	0.1U K	16V
C436	303 409 3426	CERAMIC	0.1U K	16V
C437	303 409 3426	CERAMIC	0.1U K	16V
C438	303 409 3426	CERAMIC	0.1U K	16V
C439	303 409 3426	CERAMIC	0.1U K	16V
C440	303 409 3426	CERAMIC	0.1U K	16V
C441	303 394 1312	ELECT	100U M	6.3V
	303 387 4917	ELECT	100U M	6.3V
C442	303 409 3426	CERAMIC	0.1U K	16V
C443	303 409 3426	CERAMIC	0.1U K	16V
C444	303 409 3426	CERAMIC	0.1U K	16V
C445	303 409 3426	CERAMIC	0.1U K	16V
C446	303 409 3426	CERAMIC	0.1U K	16V
C447	303 409 3426	CERAMIC	0.1U K	16V
C448	303 409 3426	CERAMIC	0.1U K	16V
C449	303 409 3426	CERAMIC	0.1U K	16V
C450	303 409 3426	CERAMIC	0.1U K	16V
C451	303 409 3426	CERAMIC	0.1U K	16V
C452	303 409 3426	CERAMIC	0.1U K	16V
C453	303 409 3426	CERAMIC	0.1U K	16V
C454	303 409 3426	CERAMIC	0.1U K	16V

Key. No.	Part No.	Description		
C455	303 409 3426	CERAMIC	0.1U K	16V
C456	303 409 3426	CERAMIC	0.1U K	16V
C457	303 409 3426	CERAMIC	0.1U K	16V
C458	303 409 3426	CERAMIC	0.1U K	16V
C459	303 409 3426	CERAMIC	0.1U K	16V
C460	303 409 3426	CERAMIC	0.1U K	16V
C461	303 409 3426	CERAMIC	0.1U K	16V
C462	303 409 3426	CERAMIC	0.1U K	16V
C463	303 409 3426	CERAMIC	0.1U K	16V
C464	303 409 3426	CERAMIC	0.1U K	16V
C465	303 409 3426	CERAMIC	0.1U K	16V
C471	303 409 3426	CERAMIC	0.1U K	16V
C4808	303 449 1212	POS-SOLID	47U M	6.3V
C4891	303 409 3426	CERAMIC	0.1U K	16V
C5001	303 409 3426	CERAMIC	0.1U K	16V
C5002	303 441 9810	CERAMIC	0.01U K	50V
C5003	303 441 9810	CERAMIC	0.01U K	50V
C5004	303 409 3426	CERAMIC	0.1U K	16V
C5006	303 409 3426	CERAMIC	0.1U K	16V
C5007	303 441 9810	CERAMIC	0.01U K	50V
C5008	303 441 9810	CERAMIC	0.01U K	50V
C5009	303 409 3426	CERAMIC	0.1U K	16V
C501	303 433 1112	CERAMIC	1U K	10V
C5011	303 283 5711	CERAMIC	2200P K	50V
C5012	303 409 3426	CERAMIC	0.1U K	16V
C5013	303 433 1112	CERAMIC	1U K	10V
C5014	303 433 1112	CERAMIC	1U K	10V
C5016	303 283 5711	CERAMIC	2200P K	50V
C5017	303 409 3426	CERAMIC	0.1U K	16V
C5018	303 401 5715	CERAMIC	0.33U K	16V
C5019	303 433 1112	CERAMIC	1U K	10V
C502	303 409 3426	CERAMIC	0.1U K	16V
C5021	303 433 1112	CERAMIC	1U K	10V
C5022	303 433 1112	CERAMIC	1U K	10V
C5023	303 433 1112	CERAMIC	1U K	10V
C5024	303 379 6714	CERAMIC	10U K	16V
C503	303 409 3426	CERAMIC	0.1U K	16V
C5038	303 441 9810	CERAMIC	0.01U K	50V
C504	303 409 3426	CERAMIC	0.1U K	16V
C5041	303 397 8219	CERAMIC	2.2U K	25V
C5042	303 398 3817	ELECT	220U M	16V
	403 457 1416	ELECT	220U M	16V
C5043	303 409 3426	CERAMIC	0.1U K	16V
C505	303 409 3426	CERAMIC	0.1U K	16V
C506	303 409 3426	CERAMIC	0.1U K	16V
C5061	303 391 5511	ELECT	10U M	16V
	303 175 7212	ELECT	10U M	16V
C5069	303 391 5511	ELECT	10U M	16V
	303 175 7212	ELECT	10U M	16V
C507	303 409 3426	CERAMIC	0.1U K	16V
C508	303 409 3426	CERAMIC	0.1U K	16V
C509	303 409 3426	CERAMIC	0.1U K	16V
C511	303 409 3426	CERAMIC	0.1U K	16V
C512	303 276 1317	CERAMIC	1000P K	50V
C513	303 409 3426	CERAMIC	0.1U K	16V
C514	303 409 3426	CERAMIC	0.1U K	16V
C515	303 409 3426	CERAMIC	0.1U K	16V
C516	303 409 3426	CERAMIC	0.1U K	16V
C517	303 409 3426	CERAMIC	0.1U K	16V
C518	303 409 3426	CERAMIC	0.1U K	16V
C519	303 409 3426	CERAMIC	0.1U K	16V
C5201	303 439 8412	CERAMIC	2.2U M	6.3V
C5202	303 439 8412	CERAMIC	2.2U M	6.3V
C5203	303 439 8412	CERAMIC	2.2U M	6.3V
C5204	303 439 8412	CERAMIC	2.2U M	6.3V
C5206	303 439 8412	CERAMIC	2.2U M	6.3V
C5207	303 439 8412	CERAMIC	2.2U M	6.3V
C5208	303 397 5713	ELECT	100U M	10V
	303 387 5617	ELECT	100U M	10V
C5209	303 409 3426	CERAMIC	0.1U K	16V
C5211	303 409 3426	CERAMIC	0.1U K	16V
C5212	303 409 3426	CERAMIC	0.1U K	16V
C5213	303 409 3426	CERAMIC	0.1U K	16V
C5214	303 409 3426	CERAMIC	0.1U K	16V
C5216	303 409 3426	CERAMIC	0.1U K	16V
C5217	303 367 0410	CERAMIC	0.1U K	50V
C5218	303 391 5115	ELECT	100U M	16V
	303 296 9515	ELECT	100U M	16V
C5219	303 367 0410	CERAMIC	0.1U K	50V
C5221	303 441 9810	CERAMIC	0.01U K	50V
C5222	303 409 3426	CERAMIC	0.1U K	16V
C5223	303 381 9918	ELECT	470U M	16V

Key. No.	Part No.	Description
	303 407 3517	ELECT 470U M 16V
	403 458 5017	ELECT 470U M 16V
C5224	303 441 9810	CERAMIC 0.01U K 50V
C5226	303 381 9918	ELECT 470U M 16V
	303 407 3517	ELECT 470U M 16V
	403 458 5017	ELECT 470U M 16V
C5227	303 441 9810	CERAMIC 0.01U K 50V
C5229	303 381 9918	ELECT 470U M 16V
	303 407 3517	ELECT 470U M 16V
	403 458 5017	ELECT 470U M 16V
C5231	303 441 9810	CERAMIC 0.01U K 50V
C5244	303 382 7814	CERAMIC 2.2U K 10V
C526	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C527	303 433 1112	CERAMIC 1U K 10V
C528	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C529	303 396 9613	CERAMIC 1U K 25V
	303 397 7618	CERAMIC 1U K 25V
C5301	303 409 3426	CERAMIC 0.1U K 16V
C5303	303 433 1112	CERAMIC 1U K 10V
C5304	303 433 1112	CERAMIC 1U K 10V
C5306	303 409 3426	CERAMIC 0.1U K 16V
C5307	303 439 8412	CERAMIC 2.2U M 6.3V
C5308	303 409 3426	CERAMIC 0.1U K 16V
C5309	303 376 6311	CERAMIC 0.47U K 10V
C531	303 433 1112	CERAMIC 1U K 10V
C5311	303 376 6311	CERAMIC 0.47U K 10V
C5312	303 433 1112	CERAMIC 1U K 10V
C5313	303 439 8412	CERAMIC 2.2U M 6.3V
C5314	303 433 1112	CERAMIC 1U K 10V
C5316	303 449 1212	POS-SOLID 47U M 6.3V
C5317	303 409 3426	CERAMIC 0.1U K 16V
C5318	303 294 6110	CERAMIC 100P J 50V
C532	303 409 3426	CERAMIC 0.1U K 16V
C5321	303 355 9913	CERAMIC 2.2U K 10V
C533	303 409 3426	CERAMIC 0.1U K 16V
C5332	303 433 1112	CERAMIC 1U K 10V
C5333	303 376 6311	CERAMIC 0.47U K 10V
C5334	303 320 0419	CERAMIC 68P J 50V
C5336	303 309 2519	CERAMIC 27P J 50V
C5337	303 294 6110	CERAMIC 100P J 50V
C534	303 409 3426	CERAMIC 0.1U K 16V
C5341	303 409 3426	CERAMIC 0.1U K 16V
C535	303 409 3426	CERAMIC 0.1U K 16V
C536	303 409 3426	CERAMIC 0.1U K 16V
C537	303 409 3426	CERAMIC 0.1U K 16V
C538	303 409 3426	CERAMIC 0.1U K 16V
C539	303 409 3426	CERAMIC 0.1U K 16V
C541	303 409 3426	CERAMIC 0.1U K 16V
C542	303 276 1317	CERAMIC 1000P K 50V
C543	303 409 3426	CERAMIC 0.1U K 16V
C544	303 409 3426	CERAMIC 0.1U K 16V
C545	303 409 3426	CERAMIC 0.1U K 16V
C546	303 409 3426	CERAMIC 0.1U K 16V
C547	303 409 3426	CERAMIC 0.1U K 16V
C548	303 409 3426	CERAMIC 0.1U K 16V
C549	303 409 3426	CERAMIC 0.1U K 16V
C556	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C557	303 433 1112	CERAMIC 1U K 10V
C558	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C559	303 396 9613	CERAMIC 1U K 25V
	303 397 7618	CERAMIC 1U K 25V
C5601	303 397 5713	ELECT 100U M 10V
	303 387 5617	ELECT 100U M 10V
C5602	303 409 3426	CERAMIC 0.1U K 16V
C5606	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C5607	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C5608	303 397 5713	ELECT 100U M 10V
	303 387 5617	ELECT 100U M 10V
C561	303 433 1112	CERAMIC 1U K 10V
C5611	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C5612	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C5613	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C5616	303 417 9912	CERAMIC 4.7U K 25V
C5617	303 417 9912	CERAMIC 4.7U K 25V
C5618	303 417 9912	CERAMIC 4.7U K 25V
C5619	303 433 1112	CERAMIC 1U K 10V
C562	303 409 3426	CERAMIC 0.1U K 16V
C5621	303 433 1112	CERAMIC 1U K 10V
C5622	303 358 3215	CERAMIC 10U K 6.3V
C5623	303 409 3426	CERAMIC 0.1U K 16V
C563	303 409 3426	CERAMIC 0.1U K 16V
C564	303 409 3426	CERAMIC 0.1U K 16V
C5641	303 367 0410	CERAMIC 0.1U K 50V
C5642	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C5643	303 409 3426	CERAMIC 0.1U K 16V
C5644	303 409 3426	CERAMIC 0.1U K 16V
C5646	303 379 7315	CERAMIC 4700P K 50V
C5648	303 433 1112	CERAMIC 1U K 10V
C5649	303 391 5115	ELECT 100U M 16V
	303 296 9515	ELECT 100U M 16V
C565	303 409 3426	CERAMIC 0.1U K 16V
C5651	303 391 5115	ELECT 100U M 16V
	303 296 9515	ELECT 100U M 16V
C5652	303 409 3426	CERAMIC 0.1U K 16V
C566	303 409 3426	CERAMIC 0.1U K 16V
C567	303 409 3426	CERAMIC 0.1U K 16V
C568	303 409 3426	CERAMIC 0.1U K 16V
C569	303 409 3426	CERAMIC 0.1U K 16V
C5701	303 367 0410	CERAMIC 0.1U K 50V
C5702	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C571	303 409 3426	CERAMIC 0.1U K 16V
C572	303 276 1317	CERAMIC 1000P K 50V
C573	303 409 3426	CERAMIC 0.1U K 16V
C574	303 409 3426	CERAMIC 0.1U K 16V
C575	303 409 3426	CERAMIC 0.1U K 16V
C576	303 409 3426	CERAMIC 0.1U K 16V
C577	303 409 3426	CERAMIC 0.1U K 16V
C578	303 409 3426	CERAMIC 0.1U K 16V
C579	303 409 3426	CERAMIC 0.1U K 16V
C586	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C587	303 433 1112	CERAMIC 1U K 10V
C588	303 397 6611	ELECT 10U M 25V
	303 387 6812	ELECT 10U M 25V
C589	303 396 9613	CERAMIC 1U K 25V
	303 397 7618	CERAMIC 1U K 25V
C6201	303 409 3426	CERAMIC 0.1U K 16V
C6202	303 409 3426	CERAMIC 0.1U K 16V
C6203	303 358 3215	CERAMIC 10U K 6.3V
C6211	303 409 3426	CERAMIC 0.1U K 16V
C6212	303 409 3426	CERAMIC 0.1U K 16V
C6213	303 358 3215	CERAMIC 10U K 6.3V
C687	303 394 9318	ELECT 220U M 6.3V
	303 387 5112	ELECT 220U M 6.3V
C7201	303 409 3426	CERAMIC 0.1U K 16V
C7202	303 409 3426	CERAMIC 0.1U K 16V
C7203	303 409 3426	CERAMIC 0.1U K 16V
C7204	303 409 3426	CERAMIC 0.1U K 16V
C7206	303 409 3426	CERAMIC 0.1U K 16V
C7207	303 409 3426	CERAMIC 0.1U K 16V
C7208	303 409 3426	CERAMIC 0.1U K 16V
C7209	303 409 3426	CERAMIC 0.1U K 16V
C7211	303 409 3426	CERAMIC 0.1U K 16V
C7212	303 409 3426	CERAMIC 0.1U K 16V
C7213	303 409 3426	CERAMIC 0.1U K 16V
C7214	303 409 3426	CERAMIC 0.1U K 16V
C7216	303 409 3426	CERAMIC 0.1U K 16V
C7217	303 409 3426	CERAMIC 0.1U K 16V
C7218	303 409 3426	CERAMIC 0.1U K 16V
C7219	303 409 3426	CERAMIC 0.1U K 16V
C7221	303 409 3426	CERAMIC 0.1U K 16V
C7222	303 409 3426	CERAMIC 0.1U K 16V
C7223	303 409 3426	CERAMIC 0.1U K 16V
C7224	303 409 3426	CERAMIC 0.1U K 16V
C7226	303 409 3426	CERAMIC 0.1U K 16V
C7227	303 409 3426	CERAMIC 0.1U K 16V
C7228	303 409 3426	CERAMIC 0.1U K 16V
C7229	303 409 3426	CERAMIC 0.1U K 16V
C7261	303 433 1112	CERAMIC 1U K 10V
C7262	303 358 3215	CERAMIC 10U K 6.3V
C7264	303 391 5313	ELECT 47U M 6.3V
	303 184 8019	ELECT 47U M 6.3V
C7266	303 409 3426	CERAMIC 0.1U K 16V

Key. No.	Part No.	Description
C7271	303 433 1112	CERAMIC 1U K 10V
C7272	303 358 3215	CERAMIC 10U K 6.3V
C7273	303 409 3426	CERAMIC 0.1U K 16V
C7274	303 409 3426	CERAMIC 0.1U K 16V
C7281	303 409 3426	CERAMIC 0.1U K 16V
C7282	303 409 3426	CERAMIC 0.1U K 16V
C7801	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C7802	303 409 3426	CERAMIC 0.1U K 16V
C7803	303 409 3426	CERAMIC 0.1U K 16V
C7804	303 391 5115	ELECT 100U M 16V
	303 296 9515	ELECT 100U M 16V
C7806	303 409 3426	CERAMIC 0.1U K 16V
C7821	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C7822	303 409 3426	CERAMIC 0.1U K 16V
C7823	303 409 3426	CERAMIC 0.1U K 16V
C7824	303 391 5115	ELECT 100U M 16V
	303 296 9515	ELECT 100U M 16V
C7841	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C7842	303 409 3426	CERAMIC 0.1U K 16V
C7843	303 409 3426	CERAMIC 0.1U K 16V
C7844	303 391 5115	ELECT 100U M 16V
	303 296 9515	ELECT 100U M 16V
C7846	303 409 3426	CERAMIC 0.1U K 16V
C7861	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C7862	303 409 3426	CERAMIC 0.1U K 16V
C7863	303 409 3426	CERAMIC 0.1U K 16V
C7864	303 391 5115	ELECT 100U M 16V
	303 296 9515	ELECT 100U M 16V
C7871	303 398 5415	ELECT 47U M 25V
	303 387 7314	ELECT 47U M 25V
C7872	303 409 3426	CERAMIC 0.1U K 16V
C7873	303 409 3426	CERAMIC 0.1U K 16V
C7874	303 391 5115	ELECT 100U M 16V
	303 296 9515	ELECT 100U M 16V
C7876	303 409 3426	CERAMIC 0.1U K 16V
C801	303 409 3426	CERAMIC 0.1U K 16V
C841	303 433 1112	CERAMIC 1U K 10V
C842	303 392 1215	ELECT 47U M 6.3V
	303 387 5310	ELECT 47U M 6.3V
C843	303 441 9810	CERAMIC 0.01U K 50V
C844	303 276 1317	CERAMIC 1000P K 50V
C8700	303 396 9613	CERAMIC 1U K 25V
	303 397 7618	CERAMIC 1U K 25V
C8701	303 409 3426	CERAMIC 0.1U K 16V
C8702	303 433 1112	CERAMIC 1U K 10V
C8703	303 409 3426	CERAMIC 0.1U K 16V
C8704	303 409 3426	CERAMIC 0.1U K 16V
C8705	303 398 4111	ELECT 47U M 16V
	303 387 6515	ELECT 47U M 16V
C8706	303 305 9918	CERAMIC 680P J 25V
C8707	303 381 5316	ELECT 100U M 16V
	303 369 3211	ELECT 100U M 16V
	403 458 7615	ELECT 100U M 16V
C8708	303 381 5316	ELECT 100U M 16V
	303 369 3211	ELECT 100U M 16V
	403 458 7615	ELECT 100U M 16V
C8811	303 276 3113	CERAMIC 33P J 50V
C8812	303 276 3113	CERAMIC 33P J 50V
C8813	303 409 3426	CERAMIC 0.1U K 16V
C8821	303 276 3113	CERAMIC 33P J 50V
C8822	303 276 3113	CERAMIC 33P J 50V
C8823	303 409 3426	CERAMIC 0.1U K 16V
C8842	303 276 3113	CERAMIC 33P J 50V
C8843	303 276 3113	CERAMIC 33P J 50V
C891	303 409 3426	CERAMIC 0.1U K 16V
C9603	303 433 1112	CERAMIC 1U K 10V
C9604	303 442 0519	CERAMIC 0.068U K 16V
C9641	303 409 3426	CERAMIC 0.1U K 16V
C9642	303 409 3426	CERAMIC 0.1U K 16V
C9643	303 409 3426	CERAMIC 0.1U K 16V
C9644	303 409 3426	CERAMIC 0.1U K 16V
C9646	303 437 4614	CERAMIC 10U K 25V
C9647	303 437 4614	CERAMIC 10U K 25V
C9882	303 409 3426	CERAMIC 0.1U K 16V
RESISTOR		
R1001	301 260 4115	MT-GLAZE 75 JA 1/3W
R1002	301 224 8814	MT-GLAZE 100 JA 1/16W
R1011	301 260 4115	MT-GLAZE 75 JA 1/3W

Key. No.	Part No.	Description
R1012	301 224 8814	MT-GLAZE 100 JA 1/16W
R1021	301 260 4115	MT-GLAZE 75 JA 1/3W
R1022	301 224 8814	MT-GLAZE 100 JA 1/16W
R1031	301 225 1418	MT-GLAZE 47K JA 1/16W
R1034	301 224 9316	MT-GLAZE 1K JA 1/16W
R1038	301 224 8814	MT-GLAZE 100 JA 1/16W
R1041	301 225 1418	MT-GLAZE 47K JA 1/16W
R1048	301 224 8814	MT-GLAZE 100 JA 1/16W
R1051	301 260 4115	MT-GLAZE 75 JA 1/3W
R1052	301 263 7420	MT-GLAZE 75 JA 1/16W
R1053	301 225 7915	MT-GLAZE 220 JA 1/16W
R1054	301 224 9316	MT-GLAZE 1K JA 1/16W
R1061	301 260 4115	MT-GLAZE 75 JA 1/3W
R1062	301 263 7420	MT-GLAZE 75 JA 1/16W
R1063	301 225 7915	MT-GLAZE 220 JA 1/16W
R1064	301 224 9316	MT-GLAZE 1K JA 1/16W
R1071	301 260 4115	MT-GLAZE 75 JA 1/3W
R1072	301 263 7420	MT-GLAZE 75 JA 1/16W
R1073	301 225 7915	MT-GLAZE 220 JA 1/16W
R1074	301 224 9316	MT-GLAZE 1K JA 1/16W
R1081	301 225 1418	MT-GLAZE 47K JA 1/16W
R1082	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1084	301 224 9316	MT-GLAZE 1K JA 1/16W
R1091	301 225 1418	MT-GLAZE 47K JA 1/16W
R1092	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1101	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1102	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1111	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1112	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1307	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R1308	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R1309	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R1311	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R1331	301 224 9415	MT-GLAZE 1M JA 1/16W
R1351	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R1352	301 224 9019	MT-GLAZE 10K JA 1/16W
R1353	301 294 4419	MT-GLAZE 1.8K FA 1/16W
R1354	301 302 5414	MT-GLAZE 220 FA 1/16W
R1356	301 294 3115	MT-GLAZE 1K FA 1/16W
R1361	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R1362	301 224 9019	MT-GLAZE 10K JA 1/16W
R1363	301 338 8113	MT-GLAZE 1.2K FA 1/16W
R1364	301 272 7814	MT-GLAZE 100 FA 1/16W
R1366	301 294 3115	MT-GLAZE 1K FA 1/16W
R1371	301 259 2313	MT-GLAZE 200K JA 1/16W
R1372	301 225 2118	MT-GLAZE 12K JA 1/16W
R1373	301 224 9019	MT-GLAZE 10K JA 1/16W
R1374	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R1376	301 261 1113	MT-GLAZE 24K JA 1/16W
R1377	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1378	301 302 3410	MT-GLAZE 13K JA 1/16W
R1379	301 035 4111	MT-GLAZE 0.000 ZA 1/8W
R1381	301 224 9019	MT-GLAZE 10K JA 1/16W
R1382	301 299 4919	MT-GLAZE 470 FA 1/16W
R1383	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1384	301 294 3115	MT-GLAZE 1K FA 1/16W
R1401	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R1402	301 224 9019	MT-GLAZE 10K JA 1/16W
R1404	301 338 6713	MT-GLAZE 1.6K FA 1/16W
R1406	301 294 3115	MT-GLAZE 1K FA 1/16W
R1407	301 225 1814	MT-GLAZE 47 JA 1/16W
R1411	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R1412	301 224 8814	MT-GLAZE 100 JA 1/16W
R1413	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1414	301 225 8110	MT-GLAZE 10 JA 1/16W
R1416	301 294 3115	MT-GLAZE 1K FA 1/16W
R1801	301 224 8814	MT-GLAZE 100 JA 1/16W
R1804	301 224 8814	MT-GLAZE 100 JA 1/16W
R1808	301 259 7823	MT-GLAZE 20K JA 1/16W
R1809	301 224 9019	MT-GLAZE 10K JA 1/16W
R1811	301 224 9019	MT-GLAZE 10K JA 1/16W
R1871	301 224 9415	MT-GLAZE 1M JA 1/16W
R2000	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R2002	301 225 1418	MT-GLAZE 47K JA 1/16W
R2003	301 225 0718	MT-GLAZE 56K JA 1/16W
R2004	301 225 1319	MT-GLAZE 470 JA 1/16W
R2006	301 224 9316	MT-GLAZE 1K JA 1/16W
R2007	301 224 8814	MT-GLAZE 100 JA 1/16W
R2008	301 225 0015	MT-GLAZE 270 JA 1/16W
R2012	301 225 1418	MT-GLAZE 47K JA 1/16W
R2013	301 225 0718	MT-GLAZE 56K JA 1/16W
R2014	301 225 1319	MT-GLAZE 470 JA 1/16W

Key. No.	Part No.	Description
R2016	301 224 9316	MT-GLAZE 1K JA 1/16W
R2017	301 224 8814	MT-GLAZE 100 JA 1/16W
R2022	301 225 1418	MT-GLAZE 47K JA 1/16W
R2023	301 225 0718	MT-GLAZE 56K JA 1/16W
R2024	301 225 1319	MT-GLAZE 470 JA 1/16W
R2026	301 224 9316	MT-GLAZE 1K JA 1/16W
R2027	301 224 8814	MT-GLAZE 100 JA 1/16W
R2028	301 225 0015	MT-GLAZE 270 JA 1/16W
R2032	301 224 9019	MT-GLAZE 10K JA 1/16W
R2033	301 224 9217	MT-GLAZE 15K JA 1/16W
R2039	301 225 8110	MT-GLAZE 10 JA 1/16W
R2041	301 225 8110	MT-GLAZE 10 JA 1/16W
R2042	301 225 8110	MT-GLAZE 10 JA 1/16W
R2043	301 225 8110	MT-GLAZE 10 JA 1/16W
R2044	301 225 8110	MT-GLAZE 10 JA 1/16W
R2071	301 224 8913	MT-GLAZE 100K JA 1/16W
R2072	301 224 8913	MT-GLAZE 100K JA 1/16W
R2073	301 224 9415	MT-GLAZE 1M JA 1/16W
R2074	301 224 9910	MT-GLAZE 22K JA 1/16W
R2076	301 260 4115	MT-GLAZE 75 JA 1/3W
R2077	301 225 1814	MT-GLAZE 47 JA 1/16W
R2078	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R2079	301 263 7420	MT-GLAZE 75 JA 1/16W
R2081	301 260 4115	MT-GLAZE 75 JA 1/3W
R2082	301 225 1814	MT-GLAZE 47 JA 1/16W
R2083	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R2084	301 263 7420	MT-GLAZE 75 JA 1/16W
R2091	301 260 4115	MT-GLAZE 75 JA 1/3W
R2092	301 225 1814	MT-GLAZE 47 JA 1/16W
R2093	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R2094	301 263 7420	MT-GLAZE 75 JA 1/16W
R2097	301 224 9316	MT-GLAZE 1K JA 1/16W
R2098	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R2501	301 224 8814	MT-GLAZE 100 JA 1/16W
R2502	301 224 8814	MT-GLAZE 100 JA 1/16W
R2503	301 224 8814	MT-GLAZE 100 JA 1/16W
R2521	301 224 8913	MT-GLAZE 100K JA 1/16W
R2531	301 224 8814	MT-GLAZE 100 JA 1/16W
R2532	301 224 8814	MT-GLAZE 100 JA 1/16W
R2533	301 224 8814	MT-GLAZE 100 JA 1/16W
R2551	301 224 8913	MT-GLAZE 100K JA 1/16W
R2561	301 224 8814	MT-GLAZE 100 JA 1/16W
R2562	301 224 8814	MT-GLAZE 100 JA 1/16W
R2563	301 224 8814	MT-GLAZE 100 JA 1/16W
R2581	301 224 8913	MT-GLAZE 100K JA 1/16W
R2890	301 224 9712	MT-GLAZE 22 JA 1/16W
R2891	301 224 9712	MT-GLAZE 22 JA 1/16W
R2892	301 224 8814	MT-GLAZE 100 JA 1/16W
R300	301 224 9019	MT-GLAZE 10K JA 1/16W
R302	301 227 5612	MT-GLAZE 8.2K JA 1/16W
R303	301 224 9316	MT-GLAZE 1K JA 1/16W
R304	301 224 9316	MT-GLAZE 1K JA 1/16W
R306	301 339 9614	MT-GLAZE 23.2K FA 1/10W
R307	301 224 9712	MT-GLAZE 22 JA 1/16W
R308	301 224 9712	MT-GLAZE 22 JA 1/16W
R309	301 224 9316	MT-GLAZE 1K JA 1/16W
R311	301 224 9316	MT-GLAZE 1K JA 1/16W
R312	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R313	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R314	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R316	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R318	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R319	301 224 9019	MT-GLAZE 10K JA 1/16W
R321	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R322	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R324	301 225 0817	MT-GLAZE 68K JA 1/16W
R325	301 224 9019	MT-GLAZE 10K JA 1/16W
R326	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R331	301 224 9712	MT-GLAZE 22 JA 1/16W
R332	301 224 9712	MT-GLAZE 22 JA 1/16W
R334	301 224 9712	MT-GLAZE 22 JA 1/16W
R336	301 224 9712	MT-GLAZE 22 JA 1/16W
R337	301 224 9712	MT-GLAZE 22 JA 1/16W
R338	301 224 9712	MT-GLAZE 22 JA 1/16W
R339	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R340	301 224 8814	MT-GLAZE 100 JA 1/16W
R341	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R342	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R343	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R344	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R347	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R348	301 225 8110	MT-GLAZE 10 JA 1/16W

Key. No.	Part No.	Description
R349	301 224 9712	MT-GLAZE 22 JA 1/16W
R3501	301 224 8913	MT-GLAZE 100K JA 1/16W
R3502	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3503	301 225 1418	MT-GLAZE 47K JA 1/16W
R3509	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R351	301 225 8110	MT-GLAZE 10 JA 1/16W
R3511	301 224 8814	MT-GLAZE 100 JA 1/16W
R3512	301 224 8814	MT-GLAZE 100 JA 1/16W
R3513	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3514	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3515	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R352	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R353	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3531	301 224 8913	MT-GLAZE 100K JA 1/16W
R3532	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3533	301 225 1418	MT-GLAZE 47K JA 1/16W
R3539	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R355	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R356	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3561	301 224 8913	MT-GLAZE 100K JA 1/16W
R3562	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3563	301 225 1418	MT-GLAZE 47K JA 1/16W
R3569	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R357	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3581	301 224 9316	MT-GLAZE 1K JA 1/16W
R3582	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R3583	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R3584	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R3601	301 225 8516	MT-GLAZE 1.8K JA 1/16W
R3602	301 225 0619	MT-GLAZE 5.6K JA 1/16W
R361	301 302 3410	MT-GLAZE 13K JA 1/16W
R362	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R3621	301 224 9019	MT-GLAZE 10K JA 1/16W
R3622	301 224 9019	MT-GLAZE 10K JA 1/16W
R3623	301 224 9019	MT-GLAZE 10K JA 1/16W
R3624	301 224 9019	MT-GLAZE 10K JA 1/16W
R3626	301 224 9019	MT-GLAZE 10K JA 1/16W
R363	301 224 9316	MT-GLAZE 1K JA 1/16W
R364	301 224 9316	MT-GLAZE 1K JA 1/16W
R366	301 224 9316	MT-GLAZE 1K JA 1/16W
R367	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R368	301 263 7420	MT-GLAZE 75 JA 1/16W
R369	301 263 7420	MT-GLAZE 75 JA 1/16W
R372	301 225 8110	MT-GLAZE 10 JA 1/16W
R373	301 225 8110	MT-GLAZE 10 JA 1/16W
R378	301 224 9019	MT-GLAZE 10K JA 1/16W
R3801	301 225 8110	MT-GLAZE 10 JA 1/16W
R3802	301 225 8110	MT-GLAZE 10 JA 1/16W
R3803	301 225 8110	MT-GLAZE 10 JA 1/16W
R3806	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R382	301 263 7420	MT-GLAZE 75 JA 1/16W
R389	301 225 0817	MT-GLAZE 68K JA 1/16W
R391	301 224 9019	MT-GLAZE 10K JA 1/16W
R392	301 225 8011	MT-GLAZE 330 JA 1/16W
R393	301 224 9019	MT-GLAZE 10K JA 1/16W
R394	301 225 2019	MT-GLAZE 680 JA 1/16W
R4001	301 224 9019	MT-GLAZE 10K JA 1/16W
R401	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4011	301 224 9316	MT-GLAZE 1K JA 1/16W
R4012	301 224 9316	MT-GLAZE 1K JA 1/16W
R4013	301 224 9514	MT-GLAZE 2.2K JA 1/16W
R4014	301 224 9019	MT-GLAZE 10K JA 1/16W
R4016	301 224 9514	MT-GLAZE 2.2K JA 1/16W
R4017	301 224 9514	MT-GLAZE 2.2K JA 1/16W
R4018	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R402	301 224 8814	MT-GLAZE 100 JA 1/16W
R4021	301 224 8814	MT-GLAZE 100 JA 1/16W
R4022	301 224 9316	MT-GLAZE 1K JA 1/16W
R403	301 224 8814	MT-GLAZE 100 JA 1/16W
R404	301 224 8814	MT-GLAZE 100 JA 1/16W
R405	301 263 7420	MT-GLAZE 75 JA 1/16W
R406	301 263 7420	MT-GLAZE 75 JA 1/16W
R407	301 263 7420	MT-GLAZE 75 JA 1/16W
R409	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R411	301 224 9712	MT-GLAZE 22 JA 1/16W
R412	301 224 9712	MT-GLAZE 22 JA 1/16W
R413	301 224 9712	MT-GLAZE 22 JA 1/16W
R414	301 224 9712	MT-GLAZE 22 JA 1/16W
R415	301 224 9712	MT-GLAZE 22 JA 1/16W
R416	301 224 9712	MT-GLAZE 22 JA 1/16W
R419	401 344 1914	MT-GLAZE 10K DA 1/16W
R420	301 226 1516	MT-GLAZE 0.000 ZA 1/16W

Key. No.	Part No.	Description
R427	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R434	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R435	301 225 1814	MT-GLAZE 47 JA 1/16W
R436	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R437	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R438	301 225 1814	MT-GLAZE 47 JA 1/16W
R439	301 225 1814	MT-GLAZE 47 JA 1/16W
R440	301 225 1814	MT-GLAZE 47 JA 1/16W
R441	301 225 1814	MT-GLAZE 47 JA 1/16W
R444	301 225 1814	MT-GLAZE 47 JA 1/16W
R447	301 225 1814	MT-GLAZE 47 JA 1/16W
R449	301 225 1814	MT-GLAZE 47 JA 1/16W
R450	301 225 1814	MT-GLAZE 47 JA 1/16W
R453	301 225 1814	MT-GLAZE 47 JA 1/16W
R454	301 225 1814	MT-GLAZE 47 JA 1/16W
R457	301 225 1814	MT-GLAZE 47 JA 1/16W
R461	301 225 1814	MT-GLAZE 47 JA 1/16W
R462	301 225 1814	MT-GLAZE 47 JA 1/16W
R463	301 225 1814	MT-GLAZE 47 JA 1/16W
R464	301 225 1814	MT-GLAZE 47 JA 1/16W
R469	301 225 1814	MT-GLAZE 47 JA 1/16W
R470	301 225 1814	MT-GLAZE 47 JA 1/16W
R471	301 225 1814	MT-GLAZE 47 JA 1/16W
R472	301 225 1814	MT-GLAZE 47 JA 1/16W
R475	301 225 1814	MT-GLAZE 47 JA 1/16W
R476	301 225 1814	MT-GLAZE 47 JA 1/16W
R478	301 225 1814	MT-GLAZE 47 JA 1/16W
R4803	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4834	301 224 9514	MT-GLAZE 2.2K JA 1/16W
R4861	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4862	301 224 8814	MT-GLAZE 100 JA 1/16W
R4863	301 224 8814	MT-GLAZE 100 JA 1/16W
R5001	301 276 4314	MT-GLAZE 4.7 JA 1/3W
R5002	301 225 8110	MT-GLAZE 10 JA 1/16W
R5003	301 225 8110	MT-GLAZE 10 JA 1/16W
R501	301 224 9316	MT-GLAZE 1K JA 1/16W
R502	301 225 8110	MT-GLAZE 10 JA 1/16W
R503	301 224 9019	MT-GLAZE 10K JA 1/16W
R5031	301 225 1319	MT-GLAZE 470 JA 1/16W
R5032	301 225 1319	MT-GLAZE 470 JA 1/16W
R5033	301 235 1415	MT-GLAZE 1.2K JA 1/16W
R5034	301 224 9316	MT-GLAZE 1K JA 1/16W
R5036	301 235 1415	MT-GLAZE 1.2K JA 1/16W
R5037	301 224 9316	MT-GLAZE 1K JA 1/16W
R5038	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5043	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R5044	301 225 8615	MT-GLAZE 560K JA 1/16W
R5046	301 234 9917	MT-GLAZE 6.8K JA 1/16W
R5047	301 225 0510	MT-GLAZE 33K JA 1/16W
R5048	301 259 7922	MT-GLAZE 5.1K JA 1/16W
R5049	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R5051	301 224 9019	MT-GLAZE 10K JA 1/16W
R5052	301 224 9613	MT-GLAZE 2.7K JA 1/16W
R5053	301 224 9019	MT-GLAZE 10K JA 1/16W
R5061	301 224 9316	MT-GLAZE 1K JA 1/16W
R5062	301 235 1415	MT-GLAZE 1.2K JA 1/16W
R5063	301 224 9316	MT-GLAZE 1K JA 1/16W
R5064	301 224 9316	MT-GLAZE 1K JA 1/16W
R5066	301 235 1415	MT-GLAZE 1.2K JA 1/16W
R5067	301 224 9316	MT-GLAZE 1K JA 1/16W
R5068	301 235 1415	MT-GLAZE 1.2K JA 1/16W
R5069	301 224 9316	MT-GLAZE 1K JA 1/16W
R5071	301 235 1415	MT-GLAZE 1.2K JA 1/16W
R511	301 224 8814	MT-GLAZE 100 JA 1/16W
R512	301 224 8814	MT-GLAZE 100 JA 1/16W
R513	301 224 8814	MT-GLAZE 100 JA 1/16W
R5201	301 225 8110	MT-GLAZE 10 JA 1/16W
R5202	301 225 8110	MT-GLAZE 10 JA 1/16W
R5203	301 225 8110	MT-GLAZE 10 JA 1/16W
R5204	301 225 8110	MT-GLAZE 10 JA 1/16W
R5206	301 225 8110	MT-GLAZE 10 JA 1/16W
R5207	301 225 8110	MT-GLAZE 10 JA 1/16W
R5208	301 224 8814	MT-GLAZE 100 JA 1/16W
R5209	301 224 8814	MT-GLAZE 100 JA 1/16W
R521	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5211	301 224 8814	MT-GLAZE 100 JA 1/16W
R5212	301 224 8814	MT-GLAZE 100 JA 1/16W
R5213	301 225 1814	MT-GLAZE 47 JA 1/16W
R5215	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R522	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5221	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5222	301 036 9610	MT-GLAZE 56 JA 1/8W

Key. No.	Part No.	Description
R5226	301 224 9316	MT-GLAZE 1K JA 1/16W
R5227	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5228	301 036 9610	MT-GLAZE 56 JA 1/8W
R5233	301 224 9316	MT-GLAZE 1K JA 1/16W
R5234	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5237	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5238	301 036 9610	MT-GLAZE 56 JA 1/8W
R524	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R526	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5282	301 224 9514	MT-GLAZE 2.2K JA 1/16W
R5289	301 224 9514	MT-GLAZE 2.2K JA 1/16W
R5302	301 225 8615	MT-GLAZE 560K JA 1/16W
R5303	301 224 9316	MT-GLAZE 1K JA 1/16W
R5304	301 224 9316	MT-GLAZE 1K JA 1/16W
R5307	301 224 9316	MT-GLAZE 1K JA 1/16W
R5308	301 224 9316	MT-GLAZE 1K JA 1/16W
R531	301 224 9316	MT-GLAZE 1K JA 1/16W
R5312	301 224 9316	MT-GLAZE 1K JA 1/16W
R5313	301 224 8814	MT-GLAZE 100 JA 1/16W
R5314	301 224 9415	MT-GLAZE 1M JA 1/16W
R5317	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5318	301 225 1517	MT-GLAZE 3.9K JA 1/16W
R5319	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R532	301 225 8110	MT-GLAZE 10 JA 1/16W
R5331	301 240 9710	MT-GLAZE 820K JA 1/16W
R5332	301 224 9316	MT-GLAZE 1K JA 1/16W
R5333	301 224 9316	MT-GLAZE 1K JA 1/16W
R5334	301 224 9019	MT-GLAZE 10K JA 1/16W
R5336	301 224 9316	MT-GLAZE 1K JA 1/16W
R5337	301 224 9316	MT-GLAZE 1K JA 1/16W
R5338	301 226 2414	MT-GLAZE 560 JA 1/16W
R534	301 224 9019	MT-GLAZE 10K JA 1/16W
R5342	301 225 0718	MT-GLAZE 56K JA 1/16W
R5343	301 224 9316	MT-GLAZE 1K JA 1/16W
R5344	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5361	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R541	301 224 8814	MT-GLAZE 100 JA 1/16W
R542	301 224 8814	MT-GLAZE 100 JA 1/16W
R543	301 224 8814	MT-GLAZE 100 JA 1/16W
R551	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R552	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R554	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R556	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5608	301 036 1218	MT-GLAZE 22 JA 1/8W
R561	301 224 9316	MT-GLAZE 1K JA 1/16W
R562	301 225 8110	MT-GLAZE 10 JA 1/16W
R5621	301 224 9019	MT-GLAZE 10K JA 1/16W
R5622	301 298 6518	MT-GLAZE 3.3K FA 1/16W
R5623	301 301 0410	MT-GLAZE 240 FA 1/16W
R5624	301 294 3115	MT-GLAZE 1K FA 1/16W
R563	301 224 9019	MT-GLAZE 10K JA 1/16W
R5641	301 224 9415	MT-GLAZE 1M JA 1/16W
R5642	301 225 0114	MT-GLAZE 27K JA 1/16W
R5643	301 224 8913	MT-GLAZE 100K JA 1/16W
R5644	301 237 2915	MT-GLAZE 51 JA 1/16W
R5647	301 224 9019	MT-GLAZE 10K JA 1/16W
R5649	301 286 4717	MT-GLAZE 30K JA 1/16W
R5651	301 286 4717	MT-GLAZE 30K JA 1/16W
R5652	301 299 4810	MT-GLAZE 2.7K FA 1/16W
R5653	301 299 2410	MT-GLAZE 5.6K FA 1/16W
R5654	945 047 8155	INDUCTOR,390 OHM
R5701	301 298 5511	MT-GLAZE 8.2K FA 1/16W
R5702	301 301 8010	MT-GLAZE 1.5K FA 1/16W
R5703	301 301 3718	MT-GLAZE 2K FA 1/16W
R5704	301 224 9019	MT-GLAZE 10K JA 1/16W
R5706	301 224 9415	MT-GLAZE 1M JA 1/16W
R571	301 224 8814	MT-GLAZE 100 JA 1/16W
R572	301 224 8814	MT-GLAZE 100 JA 1/16W
R573	301 224 8814	MT-GLAZE 100 JA 1/16W
R581	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R582	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R584	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R586	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R6201	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6202	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6203	301 224 9019	MT-GLAZE 10K JA 1/16W
R6204	301 224 9019	MT-GLAZE 10K JA 1/16W
R6206	301 224 9019	MT-GLAZE 10K JA 1/16W
R6211	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6212	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6213	301 224 9019	MT-GLAZE 10K JA 1/16W
R6214	301 224 9019	MT-GLAZE 10K JA 1/16W

Key. No.	Part No.	Description
R6216	301 224 9019	MT-GLAZE 10K JA 1/16W
R6803	301 224 9019	MT-GLAZE 10K JA 1/16W
R6813	301 224 9019	MT-GLAZE 10K JA 1/16W
R6823	301 224 9019	MT-GLAZE 10K JA 1/16W
R6841	301 225 8011	MT-GLAZE 330 JA 1/16W
R6843	301 225 8011	MT-GLAZE 330 JA 1/16W
R6846	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6848	301 225 2019	MT-GLAZE 680 JA 1/16W
R6849	301 225 2019	MT-GLAZE 680 JA 1/16W
R6851	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6853	301 301 3510	MT-GLAZE 200 JA 1/16W
R6854	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6857	301 225 1616	MT-GLAZE 390 JA 1/16W
R6858	301 225 1616	MT-GLAZE 390 JA 1/16W
R6859	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6863	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R6864	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6865	301 224 9316	MT-GLAZE 1K JA 1/16W
R6866	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R689	301 224 9019	MT-GLAZE 10K JA 1/16W
R691	301 230 8013	MT-GLAZE 1K JA 1/3W
R696	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R697	301 035 4111	MT-GLAZE 0.000 ZA 1/8W
R698	301 263 6928	MT-GLAZE 2K JA 1/16W
R7201	301 224 9019	MT-GLAZE 10K JA 1/16W
R7202	301 224 9019	MT-GLAZE 10K JA 1/16W
R7203	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7204	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7206	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7207	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7208	301 224 9316	MT-GLAZE 1K JA 1/16W
R7209	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7211	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7212	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7221	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7222	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7226	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7227	301 224 9019	MT-GLAZE 10K JA 1/16W
R7228	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7232	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7233	301 224 9019	MT-GLAZE 10K JA 1/16W
R7234	301 224 9712	MT-GLAZE 22 JA 1/16W
R7236	301 224 9712	MT-GLAZE 22 JA 1/16W
R7237	301 224 9712	MT-GLAZE 22 JA 1/16W
R7242	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7243	301 224 9019	MT-GLAZE 10K JA 1/16W
R7244	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7246	301 224 9019	MT-GLAZE 10K JA 1/16W
R7247	301 224 9712	MT-GLAZE 22 JA 1/16W
R7248	301 224 9712	MT-GLAZE 22 JA 1/16W
R7249	301 224 9712	MT-GLAZE 22 JA 1/16W
R7251	301 224 9712	MT-GLAZE 22 JA 1/16W
R7252	301 224 9712	MT-GLAZE 22 JA 1/16W
R7253	301 224 9712	MT-GLAZE 22 JA 1/16W
R7261	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R7262	301 224 9019	MT-GLAZE 10K JA 1/16W
R7263	301 294 4419	MT-GLAZE 1.8K FA 1/16W
R7264	301 302 5414	MT-GLAZE 220 FA 1/16W
R7266	301 294 3115	MT-GLAZE 1K FA 1/16W
R7267	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R7271	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R7272	301 224 9019	MT-GLAZE 10K JA 1/16W
R7273	301 272 7814	MT-GLAZE 100 FA 1/16W
R7274	301 225 8110	MT-GLAZE 10 JA 1/16W
R7276	301 294 3115	MT-GLAZE 1K FA 1/16W
R7277	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R7278	301 037 5017	MT-GLAZE 0.000 ZA 1/10W
R7281	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7282	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7283	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7284	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7286	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7287	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7288	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7289	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7301	301 224 9712	MT-GLAZE 22 JA 1/16W
R7303	301 224 9712	MT-GLAZE 22 JA 1/16W
R7307	301 224 9316	MT-GLAZE 1K JA 1/16W
R7308	301 224 9316	MT-GLAZE 1K JA 1/16W
R7309	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7311	301 225 8110	MT-GLAZE 10 JA 1/16W
R7312	301 225 8110	MT-GLAZE 10 JA 1/16W

Key. No.	Part No.	Description
R7313	301 225 8110	MT-GLAZE 10 JA 1/16W
R7314	301 225 8110	MT-GLAZE 10 JA 1/16W
R7316	301 224 9316	MT-GLAZE 1K JA 1/16W
R7317	301 224 9019	MT-GLAZE 10K JA 1/16W
R7318	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7319	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7321	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7322	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7323	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7801	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7802	301 224 9316	MT-GLAZE 1K JA 1/16W
R7803	301 224 9316	MT-GLAZE 1K JA 1/16W
R7804	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7806	301 261 1014	MT-GLAZE 2.4K JA 1/16W
R7807	301 336 8818	MT-GLAZE 6.8K FA 1/16W
R7808	301 294 2811	MT-GLAZE 2.2K FA 1/16W
R7809	301 224 9316	MT-GLAZE 1K JA 1/16W
R7811	301 235 0012	MT-GLAZE 7.5K JA 1/16W
R7812	301 284 3613	MT-GLAZE 16K JA 1/16W
R7821	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7822	301 261 1014	MT-GLAZE 2.4K JA 1/16W
R7823	301 336 8818	MT-GLAZE 6.8K FA 1/16W
R7824	301 294 2811	MT-GLAZE 2.2K FA 1/16W
R7841	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7842	301 224 9316	MT-GLAZE 1K JA 1/16W
R7843	301 224 9316	MT-GLAZE 1K JA 1/16W
R7844	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7846	301 261 1014	MT-GLAZE 2.4K JA 1/16W
R7847	301 336 8818	MT-GLAZE 6.8K FA 1/16W
R7848	301 294 2811	MT-GLAZE 2.2K FA 1/16W
R7849	301 224 9316	MT-GLAZE 1K JA 1/16W
R7851	301 235 0012	MT-GLAZE 7.5K JA 1/16W
R7852	301 284 3613	MT-GLAZE 16K JA 1/16W
R7861	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7862	301 261 1014	MT-GLAZE 2.4K JA 1/16W
R7863	301 336 8818	MT-GLAZE 6.8K FA 1/16W
R7864	301 294 2811	MT-GLAZE 2.2K FA 1/16W
R7871	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7872	301 224 9316	MT-GLAZE 1K JA 1/16W
R7873	301 224 9316	MT-GLAZE 1K JA 1/16W
R7874	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R7876	301 261 1014	MT-GLAZE 2.4K JA 1/16W
R7877	301 336 8818	MT-GLAZE 6.8K FA 1/16W
R7878	301 294 2811	MT-GLAZE 2.2K FA 1/16W
R7879	301 224 9316	MT-GLAZE 1K JA 1/16W
R7881	301 235 0012	MT-GLAZE 7.5K JA 1/16W
R7882	301 284 3613	MT-GLAZE 16K JA 1/16W
R7891	301 224 9019	MT-GLAZE 10K JA 1/16W
R7892	301 225 1418	MT-GLAZE 47K JA 1/16W
R801	301 224 9019	MT-GLAZE 10K JA 1/16W
R804	301 224 9019	MT-GLAZE 10K JA 1/16W
R806	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R807	301 224 9019	MT-GLAZE 10K JA 1/16W
R808	301 224 9019	MT-GLAZE 10K JA 1/16W
R809	301 225 8516	MT-GLAZE 1.8K JA 1/16W
R812	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R846	301 224 9316	MT-GLAZE 1K JA 1/16W
R851	301 224 9316	MT-GLAZE 1K JA 1/16W
R852	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R8700	301 035 4111	MT-GLAZE 0.000 ZA 1/8W
R8701	301 224 9019	MT-GLAZE 10K JA 1/16W
R8702	301 224 9019	MT-GLAZE 10K JA 1/16W
R8703	301 224 9019	MT-GLAZE 10K JA 1/16W
R8704	301 224 9019	MT-GLAZE 10K JA 1/16W
R8706	301 259 7922	MT-GLAZE 5.1K JA 1/16W
R8707	301 224 9019	MT-GLAZE 10K JA 1/16W
R8708	301 225 1319	MT-GLAZE 470 JA 1/16W
R8711	301 224 9019	MT-GLAZE 10K JA 1/16W
R8712	301 224 9019	MT-GLAZE 10K JA 1/16W
R8713	301 224 9019	MT-GLAZE 10K JA 1/16W
R8714	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R8715	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R8716	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R8717	301 224 9019	MT-GLAZE 10K JA 1/16W
R8718	301 224 9019	MT-GLAZE 10K JA 1/16W
R8719	301 224 9019	MT-GLAZE 10K JA 1/16W
R8721	301 224 9019	MT-GLAZE 10K JA 1/16W
R8722	301 224 9316	MT-GLAZE 1K JA 1/16W
R8723	301 225 1319	MT-GLAZE 470 JA 1/16W
R8724	301 224 9019	MT-GLAZE 10K JA 1/16W
R8726	301 224 9019	MT-GLAZE 10K JA 1/16W
R8732	301 224 8913	MT-GLAZE 100K JA 1/16W

Key. No.	Part No.	Description
R8733	301 224 8814	MT-GLAZE 100 JA 1/16W
R8746	301 224 8913	MT-GLAZE 100K JA 1/16W
R8747	301 225 9018	MT-GLAZE 470K JA 1/16W
R8748	301 224 8913	MT-GLAZE 100K JA 1/16W
R8749	301 237 2410	MT-GLAZE 270K JA 1/16W
R8751	301 261 1410	MT-GLAZE 430 JA 1/16W
R8752	301 234 4714	MT-GLAZE 3.3 JA 1W
R8754	301 225 8714	MT-GLAZE 120K JA 1/16W
R8755	301 234 4714	MT-GLAZE 3.3 JA 1W
R8756	301 301 3510	MT-GLAZE 200 JA 1/16W
R8757	301 225 0817	MT-GLAZE 68K JA 1/16W
R8758	301 261 2011	MT-GLAZE 9.1K JA 1/16W
R8759	301 225 8714	MT-GLAZE 120K JA 1/16W
R8760	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8761	301 224 9514	MT-GLAZE 2.2K JA 1/16W
R8762	301 224 9316	MT-GLAZE 1K JA 1/16W
R8763	301 224 9316	MT-GLAZE 1K JA 1/16W
R8764	301 259 7922	MT-GLAZE 5.1K JA 1/16W
R8771	301 234 4714	MT-GLAZE 3.3 JA 1W
R8772	301 234 4714	MT-GLAZE 3.3 JA 1W
R8773	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R8776	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R8777	301 224 9316	MT-GLAZE 1K JA 1/16W
R8778	301 224 9811	MT-GLAZE 220K JA 1/16W
R8779	301 224 9811	MT-GLAZE 220K JA 1/16W
R8782	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8784	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8787	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R8811	301 225 8110	MT-GLAZE 10 JA 1/16W
R8812	301 225 8110	MT-GLAZE 10 JA 1/16W
R8821	301 225 8110	MT-GLAZE 10 JA 1/16W
R8822	301 225 8110	MT-GLAZE 10 JA 1/16W
R896	301 226 2414	MT-GLAZE 560 JA 1/16W
R898	301 224 8814	MT-GLAZE 100 JA 1/16W
R9621	301 224 9415	MT-GLAZE 1M JA 1/16W
R9622	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R9624	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9626	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9627	301 225 0114	MT-GLAZE 27K JA 1/16W
R9628	301 224 9019	MT-GLAZE 10K JA 1/16W
R9629	301 224 9019	MT-GLAZE 10K JA 1/16W
R9630	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9640	423 033 5703	FUSE 32V 1.25A
R9641	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9642	301 259 7823	MT-GLAZE 20K JA 1/16W
R9643	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9644	301 294 3016	MT-GLAZE 10K FA 1/16W
R9646	301 224 9019	MT-GLAZE 10K JA 1/16W
R9647	301 225 0114	MT-GLAZE 27K JA 1/16W
R9649	301 224 9316	MT-GLAZE 1K JA 1/16W
R9651	301 224 8913	MT-GLAZE 100K JA 1/16W
R9652	301 224 9019	MT-GLAZE 10K JA 1/16W
R9653	301 259 7823	MT-GLAZE 20K JA 1/16W
R9654	301 225 1418	MT-GLAZE 47K JA 1/16W
R9656	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9657	301 264 0311	MT-GLAZE 1 JA 1/10W
R9658	301 264 0311	MT-GLAZE 1 JA 1/10W
R9659	301 264 0311	MT-GLAZE 1 JA 1/10W
R9661	301 264 0311	MT-GLAZE 1 JA 1/10W
R9881	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R9882	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R9883	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
RB301	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB302	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB303	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB304	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB306	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB307	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB401	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB402	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB403	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB404	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W

Key. No.	Part No.	Description
RB405	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB406	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB407	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB408	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB409	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB410	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB411	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB412	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB413	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB414	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB415	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB416	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB417	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB418	945 036 0986	R-NETWORK 47X4 1/32W
	945 037 0831	R-NETWORK 47X4 1/16W
RB501	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB502	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB503	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB531	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB532	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB533	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB561	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB562	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB563	945 036 3529	R-NETWORK 0X4 1/32W
	945 037 0817	R-NETWORK 0X4 1/16W
RB7201	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB7202	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB7203	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB7204	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB7206	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
RB7207	945 034 5051	R-NETWORK 22X4 1/32W
	945 037 0824	R-NETWORK 22X4 1/16W
COIL		
L1001	945 068 8349	FILTER,EMI 400MHZ
L1011	945 068 8349	FILTER,EMI 400MHZ
L1021	945 068 8349	FILTER,EMI 400MHZ
L1031	945 068 8332	FILTER,EMI 200MHZ
L1041	945 068 8332	FILTER,EMI 200MHZ
L1051	945 068 8349	FILTER,EMI 400MHZ
L1061	945 068 8349	FILTER,EMI 400MHZ
L1071	945 068 8349	FILTER,EMI 400MHZ
L1081	945 068 8332	FILTER,EMI 200MHZ
L1091	945 068 8332	FILTER,EMI 200MHZ
L1371	945 062 2930	INDUCTOR,10U M
L2071	945 086 7577	FILTER,EMI 400MHZ
L2081	945 086 7577	FILTER,EMI 400MHZ
L2091	945 086 7577	FILTER,EMI 400MHZ
L2092	945 086 7461	FILTER,EMI 100MHZ
L2501	945 041 1978	INDUCTOR,330 OHM
L2521	945 041 1978	INDUCTOR,330 OHM
L2531	945 041 1978	INDUCTOR,330 OHM
L2551	945 041 1978	INDUCTOR,330 OHM
L2561	945 041 1978	INDUCTOR,330 OHM
L2581	945 041 1978	INDUCTOR,330 OHM
L2891	945 041 1978	INDUCTOR,330 OHM
L2892	645 092 3616	IMPEDANCE,22 OHM P

Key. No.	Part No.	Description
L301	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L302	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L303	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L304	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L305	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L3051	945 068 8325	FILTER,EMI 20MHZ
L3052	945 068 8325	FILTER,EMI 20MHZ
L306	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L307	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L308	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L309	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L311	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L312	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L313	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L314	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
L3581	945 062 2824	INDUCTOR,3.3U M
L3621	945 041 1978	INDUCTOR,330 OHM
L3622	645 092 3616	IMPEDANCE,22 OHM P
L3623	945 041 1978	INDUCTOR,330 OHM
L3624	945 041 1978	INDUCTOR,330 OHM
L3626	645 092 3616	IMPEDANCE,22 OHM P
L3627	945 041 1978	INDUCTOR,330 OHM
L3628	945 041 1978	INDUCTOR,330 OHM
L3629	645 092 3616	IMPEDANCE,22 OHM P
L3631	945 041 1978	INDUCTOR,330 OHM
L3632	945 041 1978	INDUCTOR,330 OHM
L3633	645 092 3616	IMPEDANCE,22 OHM P
L3634	945 041 1978	INDUCTOR,330 OHM
L3636	945 041 1978	INDUCTOR,330 OHM
L3637	645 092 3616	IMPEDANCE,22 OHM P
L3638	945 041 1978	INDUCTOR,330 OHM
L401	945 086 6594	IMPEDANCE,100 OHM P
L402	945 086 6594	IMPEDANCE,100 OHM P
L403	945 002 5045	INDUCTOR,0.10U M
L4811	645 092 3616	IMPEDANCE,22 OHM P
L4812	945 041 1978	INDUCTOR,330 OHM
L4813	645 092 3616	IMPEDANCE,22 OHM P
L4814	645 092 3616	IMPEDANCE,22 OHM P
L4891	645 092 3616	IMPEDANCE,22 OHM P
L4892	645 092 3616	IMPEDANCE,22 OHM P
L501	945 041 1978	INDUCTOR,330 OHM
L5201	945 041 1978	INDUCTOR,330 OHM
L5202	945 041 1978	INDUCTOR,330 OHM
L521	945 041 1978	INDUCTOR,330 OHM
L5302	945 041 1978	INDUCTOR,330 OHM
L531	945 041 1978	INDUCTOR,330 OHM
L5331	945 041 1978	INDUCTOR,330 OHM
L5332	945 032 8344	INDUCTOR,39U J
L551	945 041 1978	INDUCTOR,330 OHM
L5601	645 092 3616	IMPEDANCE,22 OHM P
L561	945 041 1978	INDUCTOR,330 OHM
L5651	945 062 2855	INDUCTOR,33U M
L581	945 041 1978	INDUCTOR,330 OHM
L6201	945 041 1978	INDUCTOR,330 OHM
L6211	945 041 1978	INDUCTOR,330 OHM
L6801	945 041 1978	INDUCTOR,330 OHM
L6802	645 092 3616	IMPEDANCE,22 OHM P
L6803	645 092 3616	IMPEDANCE,22 OHM P
L6804	645 092 3616	IMPEDANCE,22 OHM P
L8701	945 033 7995	INDUCTOR,100U M
L8841	945 041 1978	INDUCTOR,330 OHM
L8842	645 092 3616	IMPEDANCE,22 OHM P
L8843	645 092 3616	IMPEDANCE,22 OHM P
L9641	945 033 7964	INDUCTOR,47U M
DIODE		
D1101	307 223 0514	ZENER DIODE 02DZ12Y(TPH3)
D1102	307 223 0514	ZENER DIODE 02DZ12Y(TPH3)
D1111	307 223 0514	ZENER DIODE 02DZ12Y(TPH3)
D1112	307 223 0514	ZENER DIODE 02DZ12Y(TPH3)
D1371	307 254 2716	DIODE CMS16
D2071	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D2091	307 223 0514	ZENER DIODE 02DZ12Y(TPH3)
D2891	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
D2892	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
D3601	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3611	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3612	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3617	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3621	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3622	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3623	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3624	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3626	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3627	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3628	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3629	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3631	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3632	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3633	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D3634	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D4812	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
D4813	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
D5061	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D5062	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D5201	307 210 5416	DIODE RB551V-30-TE-17
D5202	307 210 5416	DIODE RB551V-30-TE-17
D5203	307 210 5416	DIODE RB551V-30-TE-17
D5204	307 210 5416	DIODE RB551V-30-TE-17
D5651	307 254 2716	DIODE CMS16
D5704	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D6201	307 205 5216	DIODE RB521S-30-TE61
D6202	307 205 5216	DIODE RB521S-30-TE61
D6211	307 205 5216	DIODE RB521S-30-TE61
D6212	307 205 5216	DIODE RB521S-30-TE61
D6831	407 256 6511	LED SML-212YT T86
D6832	307 203 7816	LED SML-210LT T86 M
D6833	307 222 4810	LED SML-521MUW T86
D6841	307 223 0514	ZENER DIODE 02DZ12Y(TPH3)
D6842	307 223 0514	ZENER DIODE 02DZ12Y(TPH3)
D6843	307 223 0514	ZENER DIODE 02DZ12Y(TPH3)
D6844	307 223 0514	ZENER DIODE 02DZ12Y(TPH3)
D8700	307 210 5416	DIODE RB551V-30-TE-17
D8701	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D8702	307 210 5416	DIODE RB551V-30-TE-17
D8703	307 210 5416	DIODE RB551V-30-TE-17
D8704	307 210 5416	DIODE RB551V-30-TE-17
D8708	307 210 5416	DIODE RB551V-30-TE-17
D8709	307 210 5416	DIODE RB551V-30-TE-17
D8711	307 210 5416	DIODE RB551V-30-TE-17
D8751	307 204 0014	LED SML-210LT T86 L
D9641	307 254 2716	DIODE CMS16
MISCELLANEOUS		
FB602	945 041 1978	INDUCTOR,330 OHM
FB603	945 041 1978	INDUCTOR,330 OHM
FB606	945 041 1978	INDUCTOR,330 OHM
FB607	945 041 1978	INDUCTOR,330 OHM
FB609	945 041 1978	INDUCTOR,330 OHM
K20C	645 094 3058	JACK,RCA-3
K30A	645 089 7696	SOCKET,D-SUB 15P
K30B	645 089 7702	SOCKET,D-SUB 15P
K40C	945 078 1613	SOCKET,DIN 8P
SC1031	945 076 3503	SURGE-ABSORBER
SC1041	945 076 3503	SURGE-ABSORBER
SC1081	945 076 3503	SURGE-ABSORBER
SC1091	945 076 3503	SURGE-ABSORBER
SC2071	945 076 3503	SURGE-ABSORBER
SC2081	945 076 3503	SURGE-ABSORBER
SC2091	945 076 3503	SURGE-ABSORBER
SC2092	945 076 3503	SURGE-ABSORBER

Key. No.	Part No.	Description
SC3051	945 076 3503	SURGE-ABSORBER
SC3052	945 076 3503	SURGE-ABSORBER
SC5608	945 076 3503	SURGE-ABSORBER
SW841	945 026 2792	SWITCH,PUSH 1P-1TX1
SWRST	945 026 2792	SWITCH,PUSH 1P-1TX1
X1331	945 088 7179	OSC,CRYSTAL 27.0MHZ
X7201	945 079 6372	OSC,CRYSTAL 14.31818MHZ

610 337 2723 ASSY,PWB,KEY SW. KM3A

CAPACITOR		
C6801	303 409 3426	CERAMIC 0.1U K 16V
C6802	303 409 3426	CERAMIC 0.1U K 16V
C6803	303 409 3426	CERAMIC 0.1U K 16V
RESISTOR		
R6800	301 225 1517	MT-GLAZE 3.9K JA 1/16W
R6801	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R6802	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R6804	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R6806	301 224 9217	MT-GLAZE 15K JA 1/16W
R6807	301 234 9917	MT-GLAZE 6.8K JA 1/16W
R6808	301 225 1517	MT-GLAZE 3.9K JA 1/16W
R6809	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R6811	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R6812	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R6821	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R6822	301 225 0213	MT-GLAZE 3.3K JA 1/16W
DIODE		
D6801	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
D6802	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
D6803	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
	307 209 1214	ZD UDZS-TE-176.2B
MISCELLANEOUS		
SW6800	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6801	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6802	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6803	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6804	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6806	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6807	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6808	945 026 2792	SWITCH,PUSH 1P-1TX1
SW6811	945 026 2792	SWITCH,PUSH 1P-1TX1

610 335 7843 ASSY,PWB,POWER KL3A

TRANSISTOR		
Q601	405 218 6002	TR 2SK3934 LBS1
Q602	405 218 6002	TR 2SK3934 LBS1
Q621	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q622	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q651	305 134 5928	TR 2SA1037AK-T146-R
	305 147 2218	TR 2SA1037AK-S-T146
	305 173 9618	TR 2SA1235A1E
	305 173 9717	TR 2SA1235A1F
	405 220 3115	TR ISA1235AC1E
	405 220 3016	TR ISA1235AC1F
Q652	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q681	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0

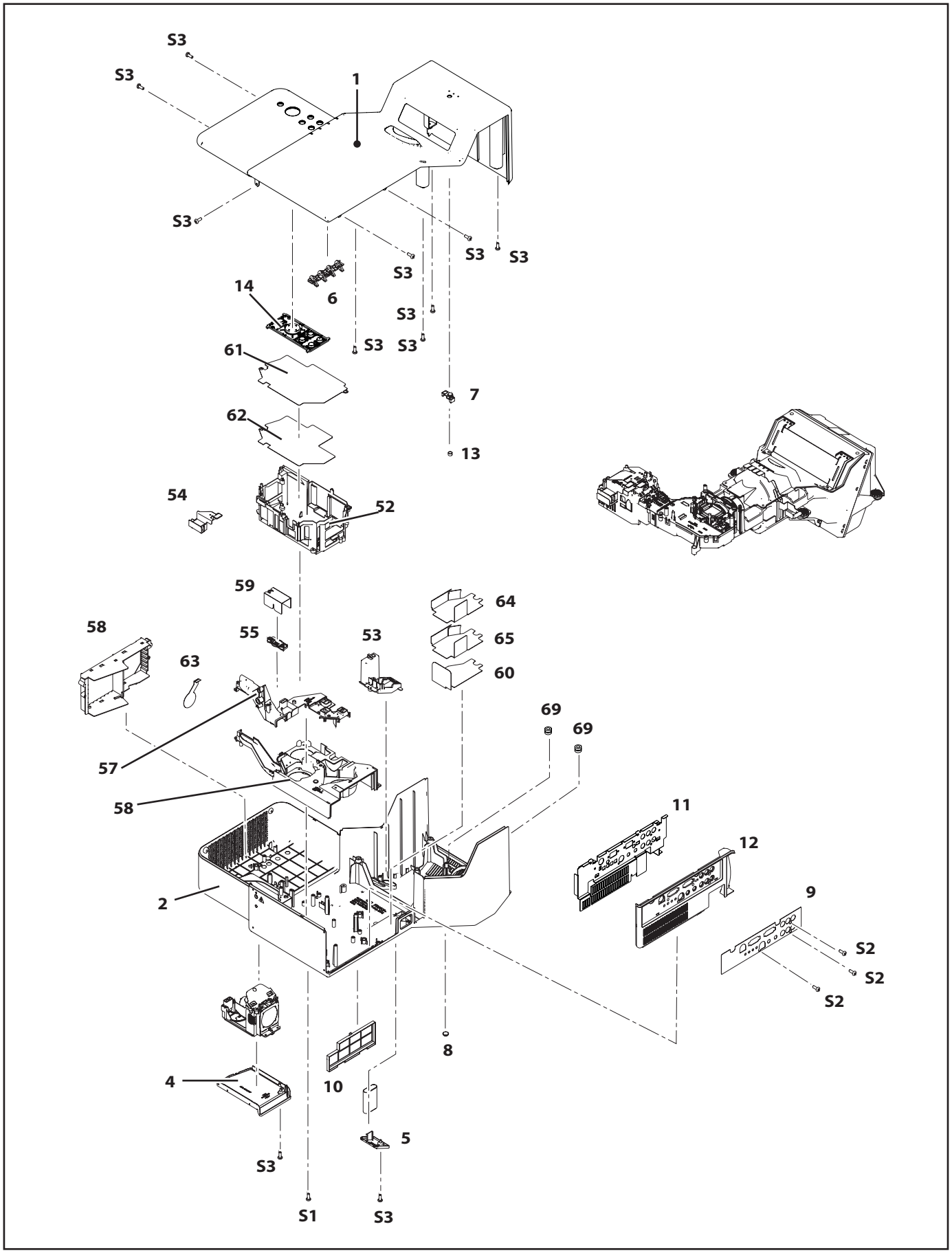
Key. No.	Part No.	Description
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
Q682	305 014 4512	TR 2SC2412K T146 R
	305 014 4611	TR 2SC2412K T146 S
	305 015 8727	TR 2SC2812-L6-TB
	305 015 8925	TR 2SC2812-L7-TB
	305 163 1615	TR 2SC2812N-L6-TB0
	305 173 9816	TR 2SC3928A1R
	305 173 9915	TR 2SC3928A1S
INTEGRATED CIRCUIT		
IC601	309 523 1413	IC FA5502M
IC651	309 558 4202	IC STR-Z2156A
IC681	309 344 6522	IC UPC1093T-E1
CAPACITOR		
⚠C607	303 371 8518	MT-POLYEST 1U K 400V
	303 427 2019	MT-POLYEST 1U K 400V
	303 451 4119	MT-POLYEST 1U K 450V
C608	303 222 1326	CERAMIC 1000P K 1K
C609	303 222 1326	CERAMIC 1000P K 1K
⚠C611	303 371 8518	MT-POLYEST 1U K 400V
	303 427 2019	MT-POLYEST 1U K 400V
	303 451 4119	MT-POLYEST 1U K 450V
C612	303 433 2812	ELECT 220U M 35V
C613	303 410 7113	ELECT 100U M 25V
C614	303 410 7113	ELECT 100U M 25V
C616	404 115 2704	ELECT 330U M 420V
	404 115 6306	ELECT 330U M 420V
C618	303 427 1814	MT-POLYEST 0.1U K 450V
C619	303 298 9612	CERAMIC 0.1U K 16V
C621	303 205 2811	CERAMIC 0.047U K 25V
C622	303 157 6417	CERAMIC 330P K 50V
C623	303 215 2214	CERAMIC 0.01U K 50V
C624	303 342 3313	CERAMIC 0.1U K 25V
C625	303 402 3918	ELECT 4.7U M 50V
C626	303 342 3313	CERAMIC 0.1U K 25V
C627	303 342 3313	CERAMIC 0.1U K 25V
C628	303 157 3317	CERAMIC 68P J 50V
C629	303 157 6615	CERAMIC 470P K 50V
C631	303 298 9612	CERAMIC 0.1U K 16V
C632	303 342 3313	CERAMIC 0.1U K 25V
C633	303 342 3313	CERAMIC 0.1U K 25V
C636	303 427 1814	MT-POLYEST 0.1U K 450V
C650	303 342 3313	CERAMIC 0.1U K 25V
C651	303 268 7013	TA-SOLID 2.2U M 35V
C652	303 367 0410	CERAMIC 0.1U K 50V
C653	303 113 3818	CERAMIC 1000P K 50V
C654	303 247 3319	CERAMIC 330P K 2K
C655	303 367 0410	CERAMIC 0.1U K 50V
C656	303 342 3313	CERAMIC 0.1U K 25V
C657	303 218 8817	CERAMIC 220P K 2K
C658	303 083 4310	POLYPRO 0.022U J 400V
C659	303 157 6813	CERAMIC 680P K 50V
C661	303 208 1415	TA-SOLID 1U M 25V
	303 411 5712	TA-SOLID 1U M 25V
C662	303 411 1823	ELECT 220U M 35V
C663	303 342 3313	CERAMIC 0.1U K 25V
C664	303 281 2415	CERAMIC 0.22U K 16V
C681	303 410 7509	ELECT 4700U M 25V
C682	303 342 3313	CERAMIC 0.1U K 25V
C683	303 445 3903	ELECT 3900U M 10V
C684	303 342 3313	CERAMIC 0.1U K 25V
C685	303 399 2126	ELECT 220U M 16V
C686	303 348 5826	CERAMIC 0.47U K 10V
C688	303 342 3313	CERAMIC 0.1U K 25V
C691	303 281 2415	CERAMIC 0.22U K 16V
C692	303 397 8219	CERAMIC 2.2U K 25V
RESISTOR		
R602	301 242 3914	MT-GLAZE 240K JA 1/2W
R603	301 242 3914	MT-GLAZE 240K JA 1/2W
R604	301 258 8217	MT-GLAZE 680 JA 1/3W
R606	302 080 8809	MT-GLAZE 680 KA 1W
R612	301 256 2613	MT-GLAZE 2.4K JA 1/10W
R613	402 109 8206	RESISTER 0.15 JB 5W
R614	402 109 8206	RESISTER 0.15 JB 5W
R615	301 255 6513	MT-GLAZE 100 JA 1/10W
R618	301 162 3711	MT-GLAZE 4.7K JA 1/10W
R619	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R620	301 255 6513	MT-GLAZE 100 JA 1/10W
R621	301 255 8715	MT-GLAZE 22 JA 1/10W
R622	301 264 9918	MT-GLAZE 36K FA 1/10W
R624	301 162 2714	MT-GLAZE 180 JA 1/10W
R625	301 265 0914	MT-GLAZE 4.7 JA 1/10W

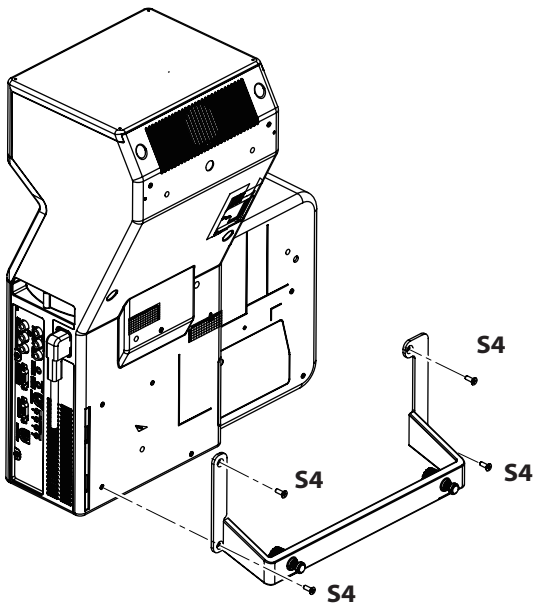
Key. No.	Part No.	Description
R626	301 152 3219	MT-GLAZE 330 JA 1/10W
R627	301 265 0914	MT-GLAZE 4.7 JA 1/10W
R628	301 255 6513	MT-GLAZE 100 JA 1/10W
R630	301 256 7519	MT-GLAZE 390 JA 1/10W
R631	301 150 5918	MT-GLAZE 10K JA 1/10W
R632	301 150 6410	MT-GLAZE 4.3K JA 1/10W
R633	301 162 3810	MT-GLAZE 470K JA 1/10W
R634	301 256 5812	MT-GLAZE 270K JA 1/10W
R635	301 255 6513	MT-GLAZE 100 JA 1/10W
R636	301 152 3110	MT-GLAZE 620 JA 1/10W
R637	301 264 2810	MT-GLAZE 1.2K FA 1/10W
R638	301 259 9015	MT-GLAZE 150K FA 1/2W
R639	301 259 9015	MT-GLAZE 150K FA 1/2W
R641	301 259 9015	MT-GLAZE 150K FA 1/2W
R642	301 259 9015	MT-GLAZE 150K FA 1/2W
R647	301 256 6611	MT-GLAZE 68K JA 1/10W
R648	301 162 2417	MT-GLAZE 1.2K JA 1/10W
R649	301 255 9514	MT-GLAZE 220K JA 1/10W
R650	301 255 8517	MT-GLAZE 9.1K JA 1/10W
R651	301 237 0010	MT-GLAZE 47K JA 1W
R652	301 237 0010	MT-GLAZE 47K JA 1W
R653	301 237 0010	MT-GLAZE 47K JA 1W
R654	301 237 0010	MT-GLAZE 47K JA 1W
R655	301 162 4015	MT-GLAZE 560 JA 1/10W
R656	301 237 0010	MT-GLAZE 47K JA 1W
R657	301 237 0010	MT-GLAZE 47K JA 1W
⚠R658	302 081 2905	FUSIBLE RES 22 JH 1/2W
R659	301 238 4512	MT-GLAZE 47 JA 1/3W
⚠R660	302 081 2905	FUSIBLE RES 22 JH 1/2W
⚠R661	324 006 1305	FUSE 250V 2.5A
R671	301 150 6212	MT-GLAZE 1K JA 1/10W
R672	301 257 7419	MT-GLAZE 120 JA 1/3W
R673	301 162 3711	MT-GLAZE 4.7K JA 1/10W
R674	301 256 2613	MT-GLAZE 2.4K JA 1/10W
R679	301 258 2611	MT-GLAZE 150 FA 1/10W
R681	301 150 5918	MT-GLAZE 10K JA 1/10W
R682	301 256 6215	MT-GLAZE 270 JA 1/10W
R683	301 150 6212	MT-GLAZE 1K JA 1/10W
R684	301 150 5918	MT-GLAZE 10K JA 1/10W
R686	301 162 3414	MT-GLAZE 39K JA 1/10W
R687	301 265 4417	MT-GLAZE 6.8K FA 1/10W
R688	301 150 5918	MT-GLAZE 10K JA 1/10W
R692	301 150 6212	MT-GLAZE 1K JA 1/10W
R693	301 150 5918	MT-GLAZE 10K JA 1/10W
R694	301 162 3711	MT-GLAZE 4.7K JA 1/10W
R699	301 238 4215	MT-GLAZE 1.5K JA 1/3W
VARIABLE RESISTOR		
VR601	945 025 7415	VR,SEMI,1K S
TRANSFORMER		
T601	645 089 2561	INDUCTOR,700U
⚠T651	945 085 7035	TRANS,POWER,PULSE
COIL		
L603	945 081 4878	LINE FILTER
L611	645 089 2677	FILTER,EMI 1500PF
L614	645 089 2677	FILTER,EMI 1500PF
L616	645 089 2677	FILTER,EMI 1500PF
DIODE		
D601	307 247 8827	DIODE RF101L2S
D602	307 247 8827	DIODE RF101L2S
D603	307 164 4015	DIODE RB160L-40-TE25
	307 149 6327	DIODE SFPB-54V
D604	307 225 4401	DIODE FMX-G26S
D605	307 223 0811	ZENER DIODE 02DZ22Y(TPH3)
D606	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D607	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D608	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D609	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D610	307 164 4015	DIODE RB160L-40-TE25
	307 149 6327	DIODE SFPB-54V
D615	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D651	307 247 8827	DIODE RF101L2S
D652	407 256 3213	DIODE CRF03(TE85L)
D653	307 223 0514	ZENER DIODE 02DZ12Y(TPH3)
D654	307 163 0414	DIODE 1SS352-(TPH3)
	307 149 0810	DIODE 1SS355-TE-17
D681	307 202 9801	DIODE FMB-26L
	307 253 7504	DIODE RB085T-60
D682	307 202 9801	DIODE FMB-26L
	307 253 7504	DIODE RB085T-60
D683	307 247 8827	DIODE RF101L2S
D686	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3
D687	307 210 5416	DIODE RB551V-30-TE-17
⚠DB601	307 143 6006	DIODE RBV-1506
	308 045 4909	DIODE RBV-1506 LF-B
DS601	307 219 0808	THYRISTOR TF861S
MISCELLANEOUS		
FB601	910 244 3975	CORE
FB602	910 244 3975	CORE
⚠PC601	307 223 7315	PC TLP421F(D4-GB-TP4)
	307 223 8312	PC TLP421F(D4-GR-TP4)
⚠PC602	307 223 7315	PC TLP421F(D4-GB-TP4)
	307 223 8312	PC TLP421F(D4-GR-TP4)
PTH601	308 037 5600	THERMISTOR NTH11D8R0LC
PTH652	308 061 3900	TH PRF18BC471QB1RB

610 335 7812 ASSY,PWB,LINE FILTER KL3A

CAPACITOR		
⚠C601	404 113 2904	MT-POLYEST 0.33U K 275V
⚠C602	404 113 2904	MT-POLYEST 0.33U K 275V
⚠C603	304 104 9502	CERAMIC 1500P K 250V
⚠C604	304 104 9502	CERAMIC 1500P K 250V
RESISTOR		
R600	301 238 1016	MT-GLAZE 120K JA 1/2W
R601	301 238 1016	MT-GLAZE 120K JA 1/2W
VARIABLE RESISTOR		
⚠VA601	308 061 5607	VARISTOR ENE471D-14A-S6
COIL		
L601	945 050 2232	LINE FILTER
MISCELLANEOUS		
⚠F601	323 025 1204	FUSE 250V 8A
⚠K601	645 094 0958	UNIT,NOISE FILTER

Mechanical Parts List

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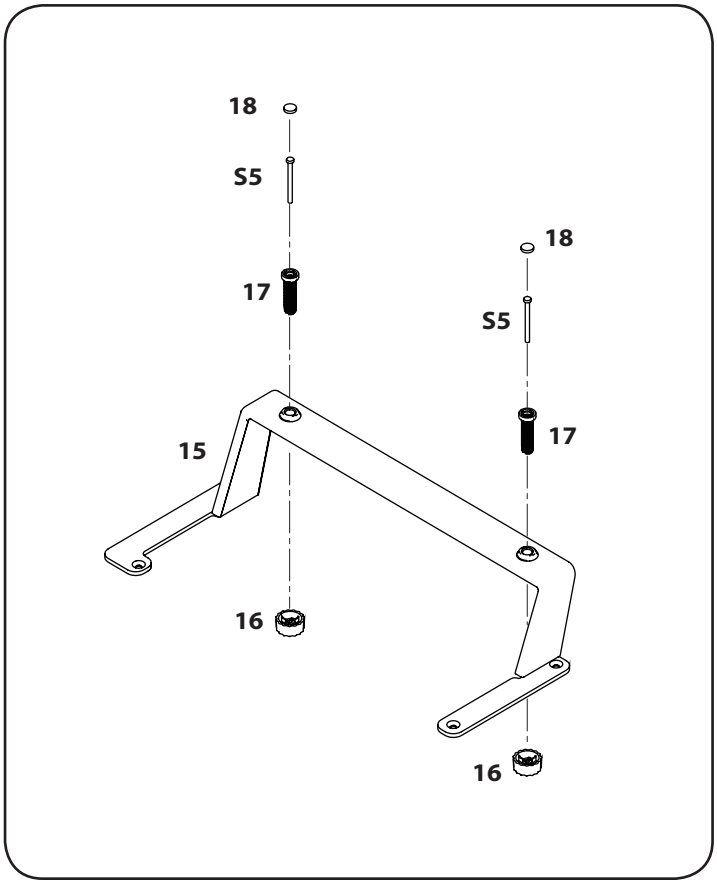
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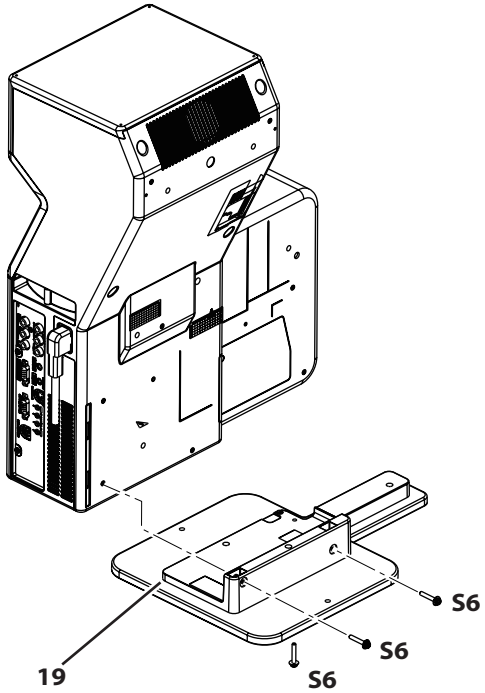
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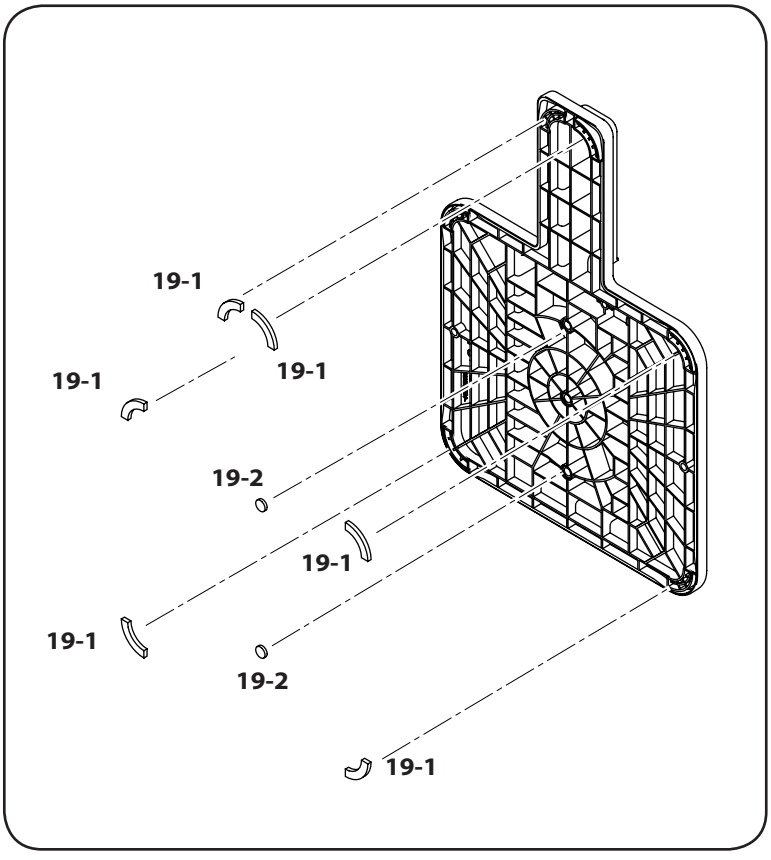
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19-1
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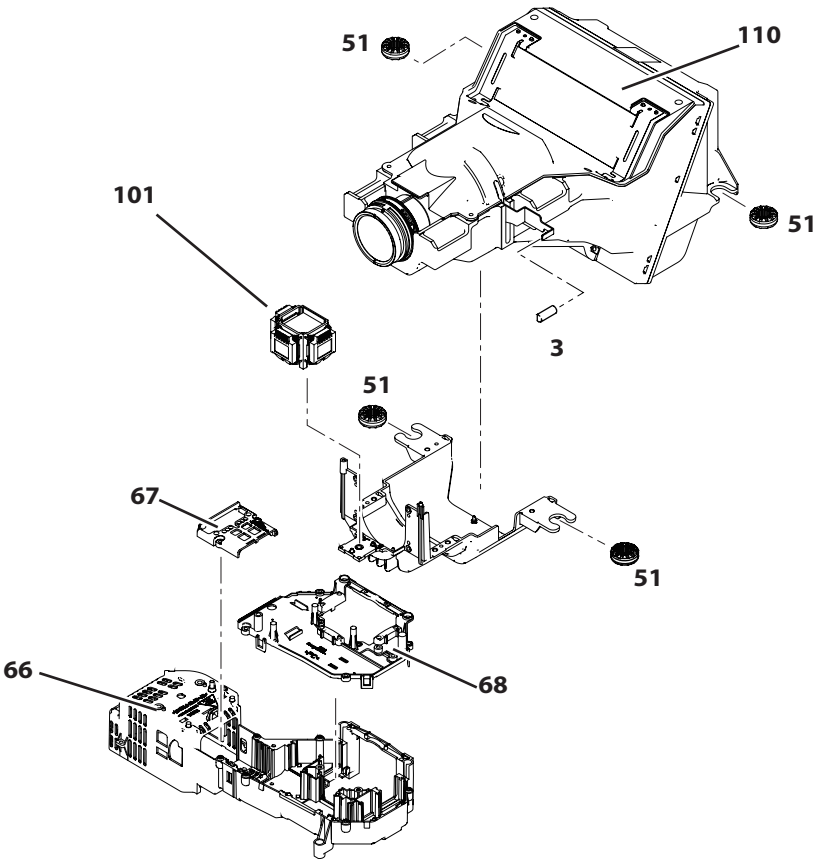
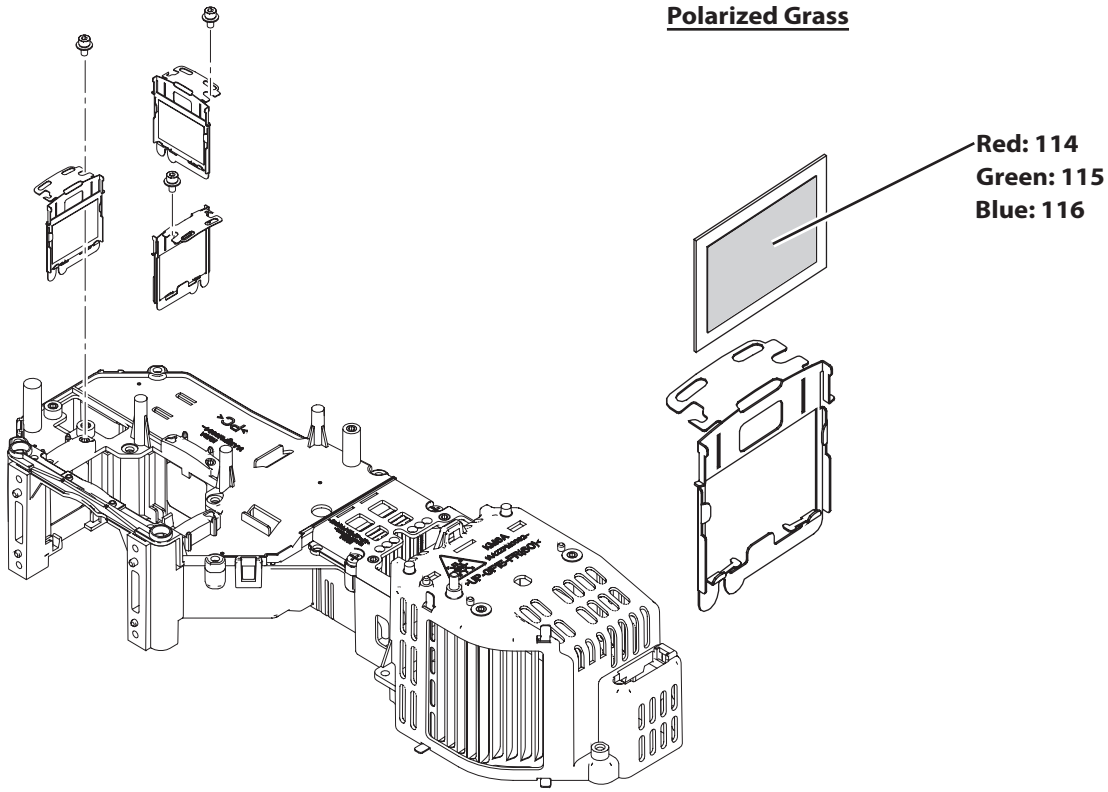
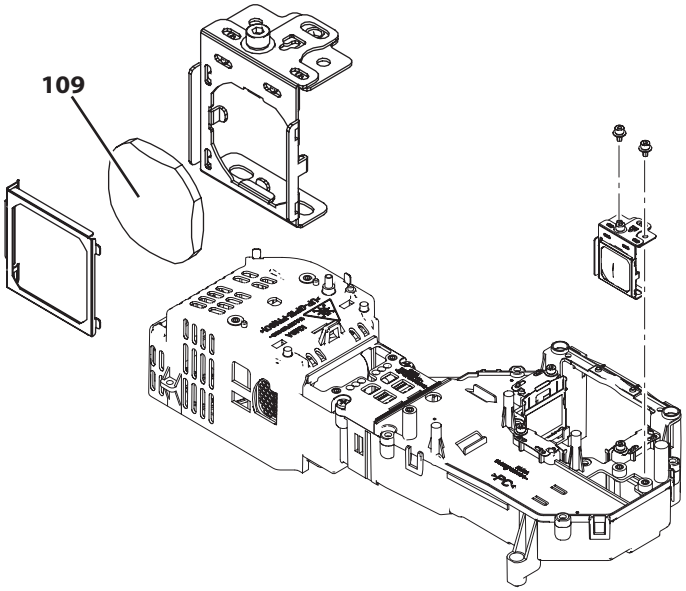
19-2
19-1

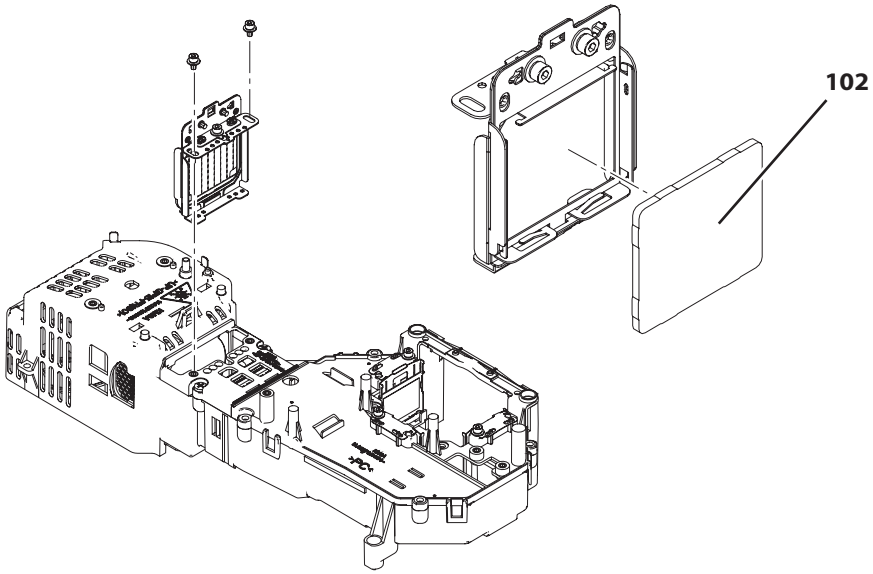


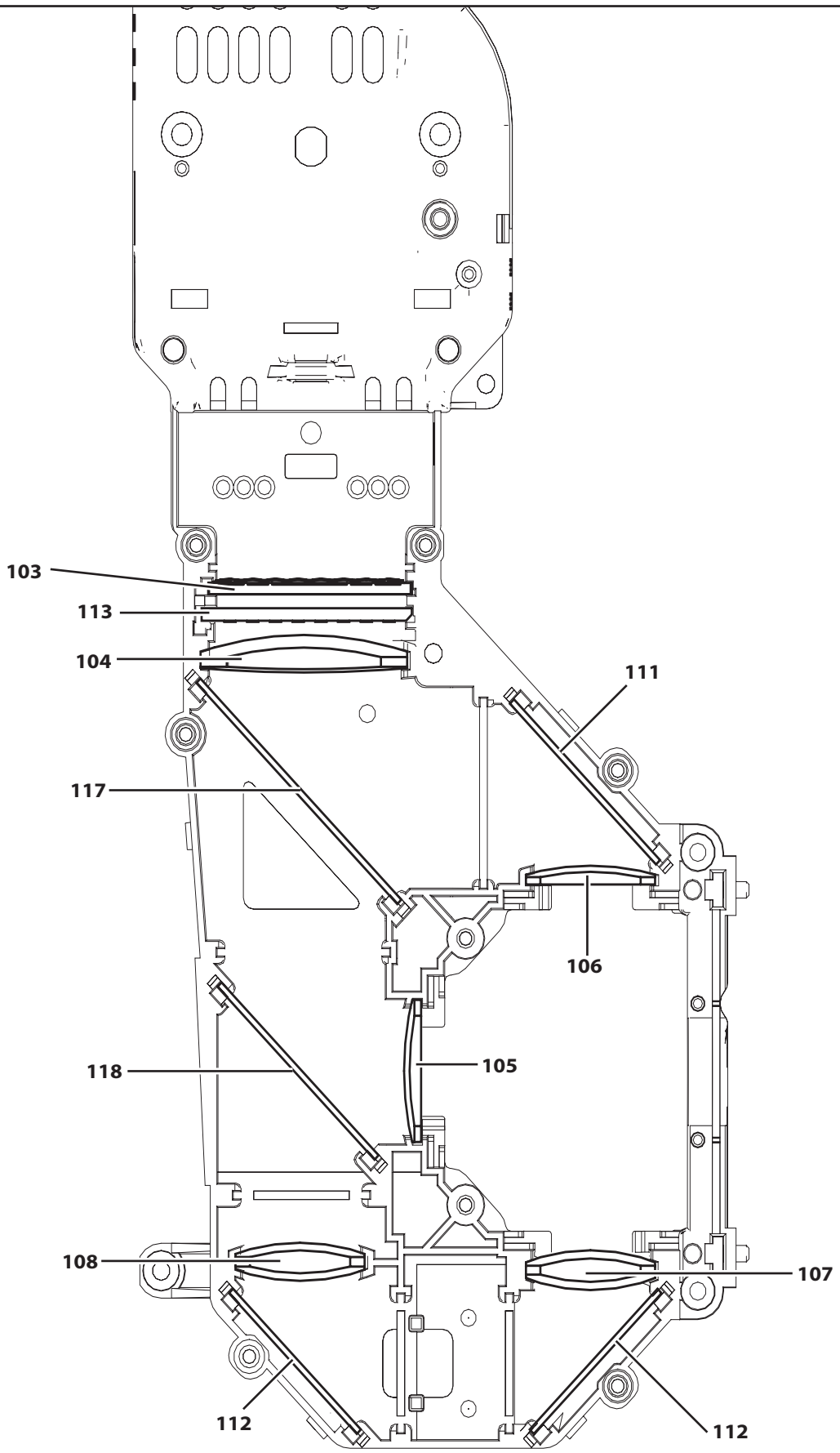
Polarized Grass





Integrator Lens In




103
113
104
111
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108
107
112
112

Key. No.	Part No.	Description
CABINET PARTS		
1	610 335 4088	CABINET TOP-KM3A
2	610 335 4132	CABINET BOTTOM-KM3A
3	610 336 2595	CAP FOCUS LEVER-KM3A
4	610 337 3737	COVER ,LP SERVICE-KM3A
5	610 336 2724	COVER, ALARM-KM3A
6	610 335 7041	DEC INLAY LED-KM3A
7	610 335 7027	DEC INLAY RC F-KM3A
8	910 295 3085	DEC LEG-MW6A
9	610 336 8191	DEC AV SHEET-KM3A
10	610 335 4057	FILTER BASE-KM3A
11	610 335 8420	HOLDER AV-KM3A
12	610 335 6976	PANEL AV-KM3A
13	610 338 4108	PIPE RC-KM3A
14	610 336 2472	BUTTON-KM3A
15	610 336 7729	ASSY,STAND PLATE-KM3A
16	610 337 1559	CAP STAND LEG-KM3A
17	610 337 1597	STAND LEG-KM3A
18	610 337 1511	DEC STAND LEG-KM3A
CHASSIS PARTS		
51	610 335 7294	BUSH-KM3A
52	610 334 4348	HOLDER POWER PWB BTM-KM6AC
53	610 336 2502	HOLDER ALARM-KM3A
54	610 336 2601	HOLDER TRIGGER BOX-KM3A
55	610 336 7156	HOLDER T SW-KM3A
56	610 335 4200	MOUNTING DUCT BTM-KM3A
57	610 335 4002	MOUNTING DUCT TOP-KM3A
58	610 335 4101	MOUNTING DUCT EXH-KM3A
59	610 338 1800	SPACER SHEET TMP SW-KM3A
60	610 338 3897	SPACER SHEET AC PWB-KM3A
61	610 336 8399	SPACER SHEET#POW T TOP-KM3A
62	610 336 8290	SPACER SHEET#POW T BTM-KM3A
63	610 336 8573	SPACER SHEET FAN-KM3A
64	610 336 9457	SPACER SHEET AC-KM3A
65	610 336 9402	SPACER SHEET AC T-KM3A
66	610 331 1692	OPTICAL BASE BTM-KM6A
67	610 331 1715	OPTICAL BASE TOP A-KM6A
68	610 331 1722	OPTICAL BASE TOP B-KM6A
69	645 094 5908	DAMPER,BUSH(DIA12*H9)
OPTICAL PARTS		
101	610 338 5426	ASSY,LCD PNL/PRISM -KM3A
102	945 088 7797	LENS,INTEGRATOR(IN)
103	945 088 7803	LENS,INTEGRATOR(OUT)
104	645 095 9851	LENS,CONDENSER(OUT)NC
105	645 095 9868	LENS,CONDENSER(G)NC
106	945 088 7841	LENS,CONDENSER(B)
107	945 088 7858	LENS,CONDENSER(R)
108	945 088 7865	LENS,RELAY(IN)
109	945 088 7872	LENS,RELAY(OUT)
110	645 092 3234	LENS,PROJECTION
111	945 088 7889	MIRROR(B)
112	945 088 7896	MIRROR(R)
113	645 092 9892	PRISM(PBS)
114	645 089 3476	POLARIZED GLASS(IN/R)
115	645 089 3483	POLARIZED GLASS(IN/G)
116	645 089 3490	POLARIZED GLASS(IN/B)
117	945 088 7902	DICHROIC MIRROR (B)
118	945 088 7919	DICHROIC MIRROR (G)
SCREWS		
S1	411 189 7207	SCR S-TPG BIN 3X8
S2	411 214 2900	SCR S-TPG PAN 3X6
S3	411 189 8600	SCR BIN 3X8
S4	411 216 8603	SCR FLT 4X12
S5	411 216 8108	SCR S-TPG PAN 3X35

Key. No.	Part No.	Description
PACKING MATERIALS		
	610 338 9455	CUSHION SPACER BTM-KM3A
	610 336 8689	CARTON CASE-KM3A
	610 336 8207	CUSHION SPACER-KM3A
	610 336 8382	CUSHION A-KM3A
	610 336 8474	CUSHION B-KM3A
	645 096 4015	POLY BAG-0750X0600*NC*R8P
ACCESSORIES		
OWNER'S MANUAL		
	610 337 1078	SETUP INST MANUAL-KM3A
	610 337 1436	CD-ROM,OWNERS MANUAL-KM3A
REMOTE CONTROL		
	645 093 7248	ASSY,REMOCON CXWW
	910 321 4482	RC-BATTERY LID-CXTJ
STAND		
19	610 336 8153	ASSY, OPTION STAND -KM3A
19-1	610 337 6356	DEC OPTION LEG-KM3A
19-2	610 337 1511	DEC STAND LEG-KM3A
S6	411 217 0804	SCR PAN+SW+W 4X25
MISCELLANEOUS		
	910 314 8985	LABEL,PIN CODE-MY7A
	910 325 1890	LABEL,ALARM-PZ5A
	610 338 3200	IND POLYE COVER-KM3A
	945 073 4855	CABLE,INTERFACE VGA
	645 093 1642	CABLE,INTERFACE VGA
AC CORD		
⚠(US)	945 064 6363	CORD,POWER-3.0MK,US
⚠(EU)	945 054 1156	CORD,POWER-3.0MK
⚠(UK)	945 054 1149	CORD,POWER-3.138MK

SM5110903-00 (PLC-XL50) Dec. 2007 DC 350 Printed in Japan

Diagrams & Drawings

Schematic Diagrams
Printed Wiring Board Drawings

Model	Chassis No.
PLC-XL50	KM3-XL5000

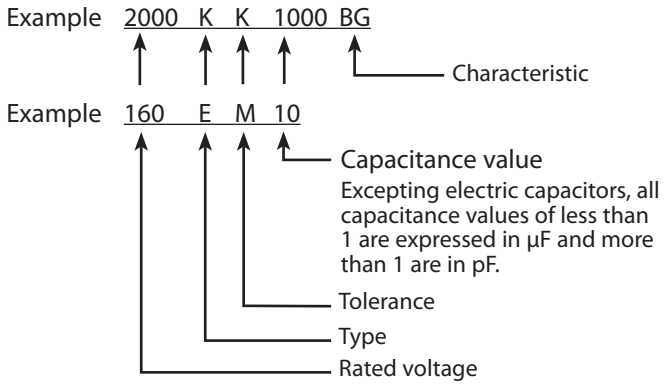
These schematic diagrams and printed wiring board drawings are part of the service manual original for chassis No. KM3_XL5000 models PLC-XL50.
File with the service manual No. SM5110903-00

Note:
All the information of part numbers and values indicated on these diagrams are at the beginning of production. To improve the performance, there may be some differences to the actual set. When you order the service parts, use service parts code mentioned on the parts list in this service manual.

Parts description and reading in schematic diagram

1. The parts specification of resistors, capacitors and coils are expressed in designated code. Please check the parts description by the following code table.
2. Some of transistors and diodes are indicated in mark for the substitution of parts name. Please check the parts name by the following code table.
3. Voltages and waveforms were taken with a video color bar signal (1Vp-p at 75 ohms terminated) and controls to normal.
4. Voltages were taken with a high-impedance digital voltmeter.

Capacitor Reading


Example 2000 K K 1000 BG
Characteristic
Example 160 E M 10
Capacitance value
Excepting electric capacitors, all capacitance values of less than 1 are expressed in µF and more than 1 are in pF.
Tolerance
Type
Rated voltage

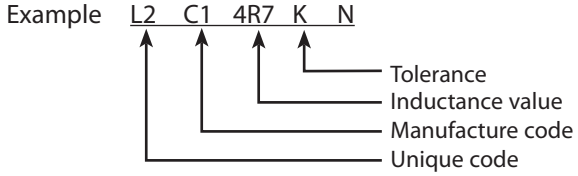
● **Material table**

Mark	Material
E	Electrolytic
P	Electrolytic (non-polarized)
C	Ceramic (temperature compensation)
K	Ceramic
F	Polyester
N	Polypropylene
M	Metalized polypropylene
H	Metalized polypromylar
B	Ceramic (semiconductor)
G	Metalized polyestel
Y	Composite film
S	Styrol
T	Tantalum oxide solid electrolytic
U	Organic semiconductive electrolyte
D	Electric double layer electrolytic

● **Tolerance table**

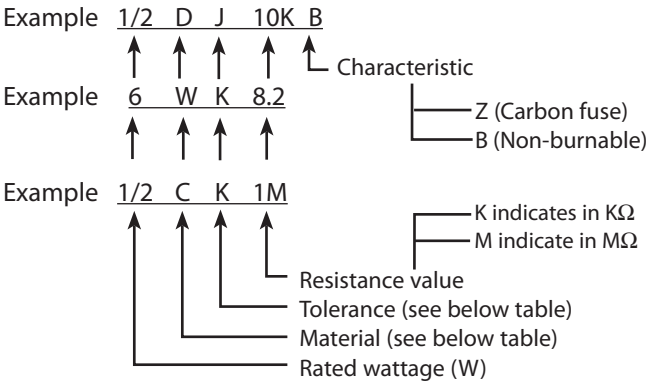
Mark	Tolerance	
A	not specified	
B	±0.1	
C	±0.25	
D	±0.5	
F	±1	
G	±2	
E	±2.5	
H	±3	
J	±5	
K	±10	
M	±20	
N	±30	
P	+100	-0
Q	+30	-10
T	+50	-10
U	+75	-10
V	+20	-10
W	+100	-10
X	+40	-20
Y	+150	-10
Z	+80	-20

Coil Reading



Mark	Tolerance (nH)	Mark	Tolerance (%)
C	±0.25	G	±2
D	±0.5	J	±5
S	±0.3	K	±10
A	±0.2	L	±15
		M	±20

Resistor Reading



Note: Resistor which is indicated with resistance value only are 1/6W carbon resistor. Resistor which is indicated with material, tolerance and value are 1/4W rated wattage.

● **Material table**

Mark	Material
D	Carbon
N	Metal film
S	Oxide metal film
C	Solid
G	Metal glaze
W	Wire wounding or cement
H	Ceramic
F	Fusible

● **Tolerance table**

Mark	Tolerance
A	±0.05
B	±0.1
C	±0.25
D	±0.5
F	±1
G	±2
J	±5
K	±10
M	±20
P	+5 -15
Z	used in 0 ohm

Diode/Transistor Type Reading

● **Diode**

Mark	Type number
R	1S2076A,1S2473,1N4148
AA	1S2076A,1S2473,1SS133,1N4148

● **Transistor**

(1) NPN type

Mark	Type number				
--	2SC536	2SC945A	2SC1815	2SC1740S	
AD	NF, NG	PA, QA	Y, GR	Q, R, S	
AE	NF, NG	PA, QA, RA	O, Y, GR	Q, R, S	

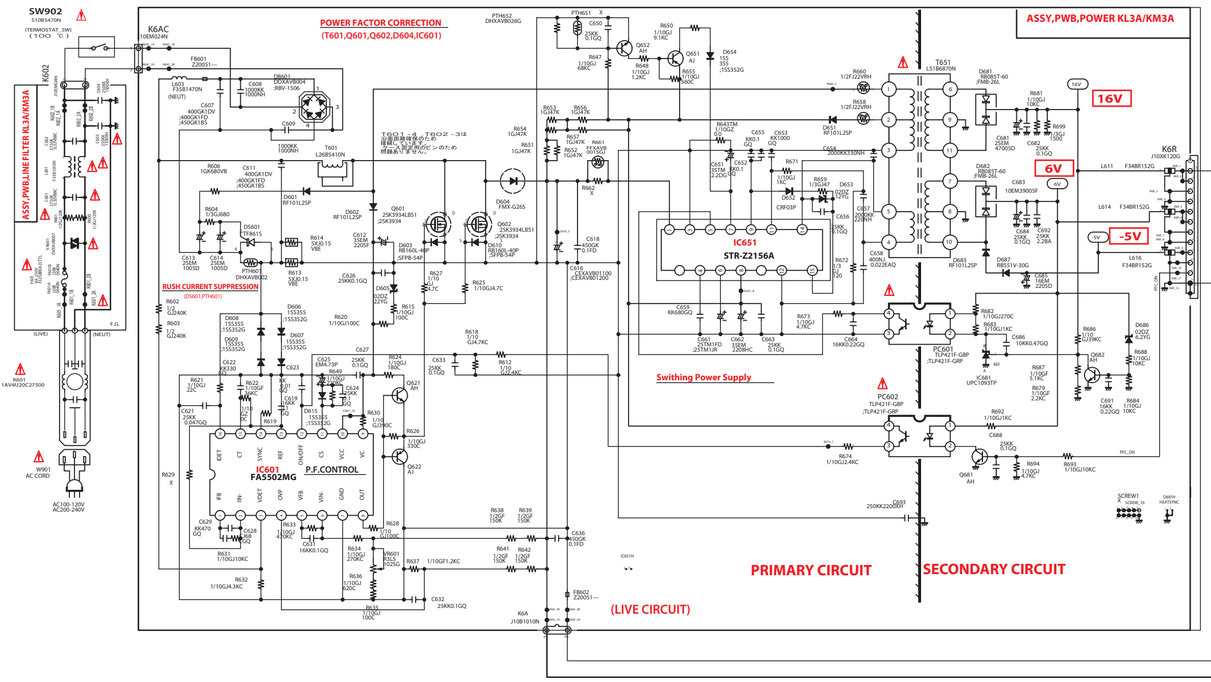
(2) PNP type

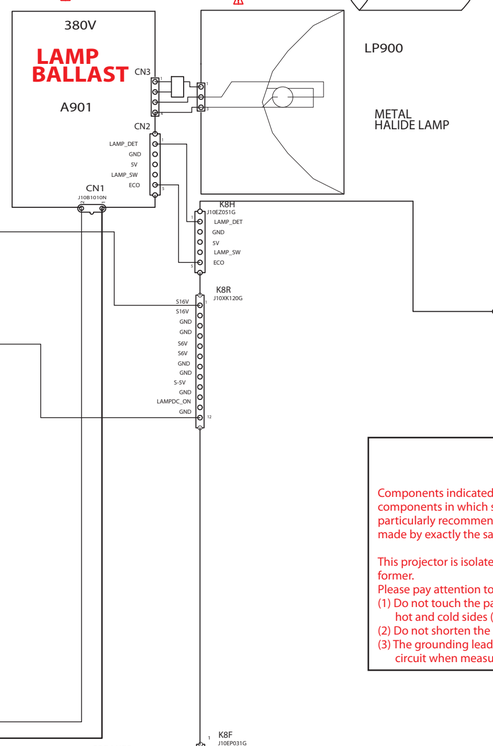
Mark	Type number				
--	2SA608	2SA564A	2SA1015	2SA933S	
AB	NF	R	Y, GR	R	
AC	NF	Q, R	O, Y, GR	Q, R	

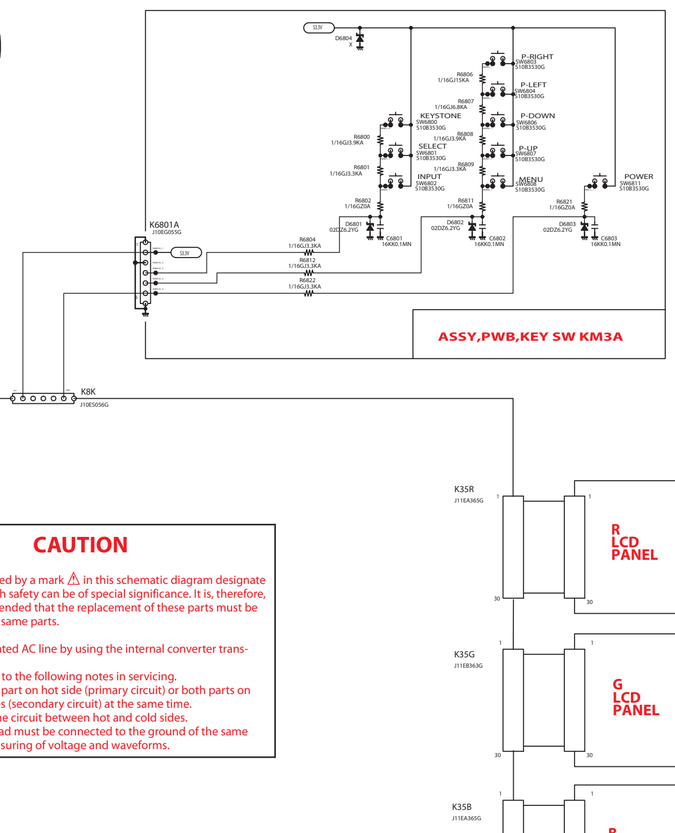
(3) Chip type

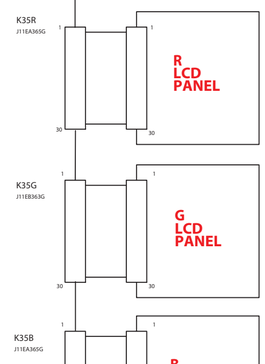
Mark	Type number				
--	2SA1179N	2SA1037K	2SA1037AK	2SC2812/N	2SC2412K
AJ	M6, M7	R, S	R, S		
AH				L6, L7	R, S

Schematic Diagrams









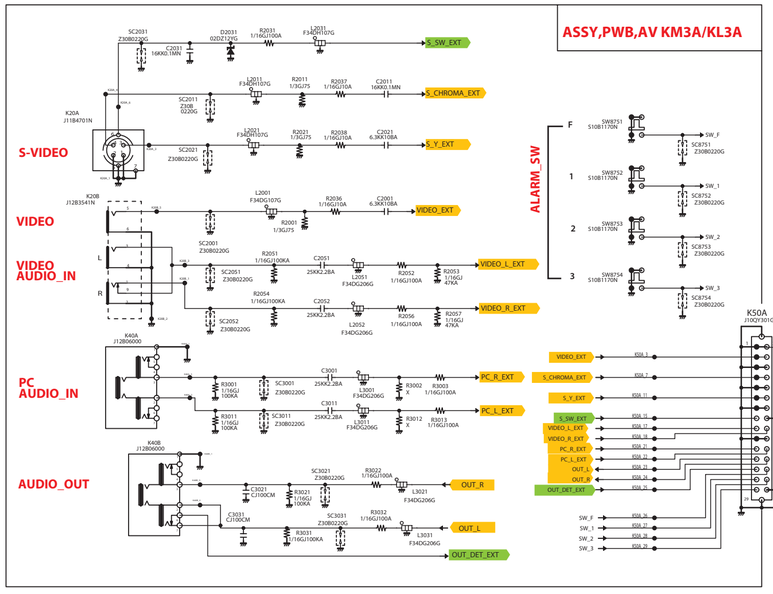
CAUTION

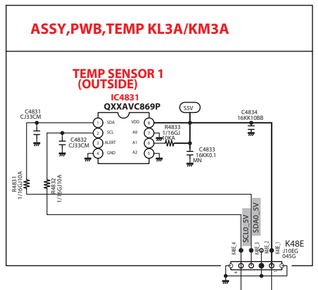
Components indicated by a mark ⚠ in this schematic diagram designate components in which safety can be of special significance. It is, therefore, particularly recommended that the replacement of these parts must be made by exactly the same parts.

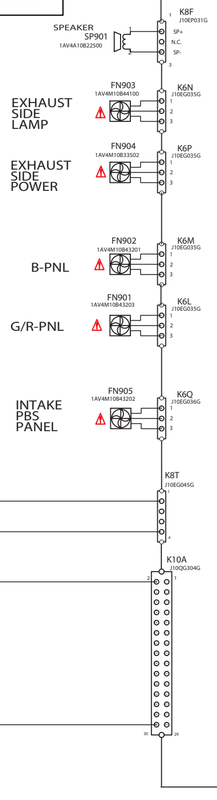
This projector is isolated AC line by using the internal converter transformer.
Please pay attention to the following notes in servicing.
(1) Do not touch the part on hot side (primary circuit) or both parts on hot and cold sides (secondary circuit) at the same time.
(2) Do not shorten the circuit between hot and cold sides.
(3) The grounding lead must be connected to the ground of the same circuit when measuring of voltage and waveforms.

CAUTION

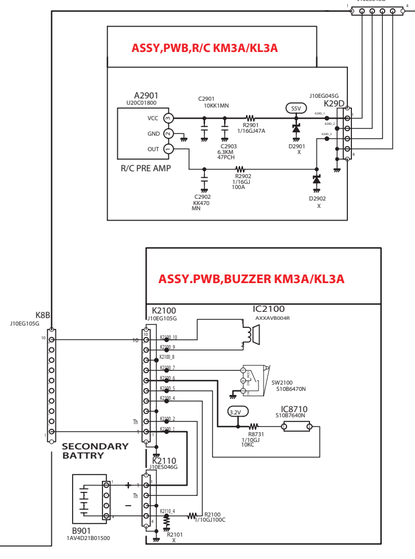
Fuse of the specified parts number must be used.
Unauthorized substitutions may result in fire or accidend.







ASSY,PWB,MAIN KM3A



PC1

RGB/
SCART

K30A
J11B8382N

SC1001
X
L1001
F34DG407G
R1001
1/3GJ75
R1002
1/16GJ100A
SC1011
X
L1011
F34DG407G
R1011
1/3GJ75
R1012
1/16GJ
100A
SC1021
X
L1021
F34DG407G
R1021
1/3GJ75
R1022
1/16GJ
100A
SC1033
Z30B0220G
L1031
F34DG207G
R1031
1/16GJ470KA
R1084
1/16GJ
1KA
SC1041
Z30B0220G
L1041
F34DG207G
R1041
1/16GJ470KA
C1091
100K
0.1MN
C4001
100K
0.1MN
C4002
100K
0.1MN
C4003
10KX2.2GQ
C4004
16KK0.1MN
C4006
16KK0.1MN
R1035
1/16GJ
10KA
R1036A
1/16GJ
10KA
R1037
1/16GJ
10KA
R1038A
1/16GJ
10KA
R4001
1/16GJ
10KA
Q4001
RN1113P
MONIT_OUT
LOWON
HIGHMONITOR OUT
IC4001
AD8075ARUP
SIPC_A
R1101
1/16GJ20A
R1102
1/16GJ20A
DDC1_PCA
DDC2_PCA
D1101
02DZ12YG
D1102
02DZ12YG
Q5287
RN1111P
Q5284
RN1111P
Q5286
RN1111P
CABLE_SW
R5285
1/16GJ
2.2KA
R1035A
1/16GJ
10KA
R1036
1/16GJ
10KA
R1037A
1/16GJ
10KA
R1038
1/16GJ
10KA
R4021
1/16GJ
10KA
IC4021
QXXAVB511P
R4022
1/16GJ
1KA
Q4021
RN1111P
MONIT_OUT
LOWON
HIGHMONITOR OUT
R1_IN
G1_IN
B1_IN
H1_IN
V1_IN
R2_IN
G2_IN
B2_IN

PC2

RGB-IN/
RGB-OUT

K30B
J11B8383N

SC1051
X
L1051
F34DG407G
R1051
1/3GJ75
R1053
1/16GJ20A
R1054
1/16GJ
1KA
SC1061
X
L1061
F34DG407G
R1061
1/3GJ
75JA
R1063
1/16GJ20A
R1064
1/16GJ
1KA
SC1071
X
L1071
F34DG407G
R1071
1/3GJ
75JA
R1073
1/16GJ20A
R1074
1/16GJ
1KA
SC1081
Z30B0
220G
L1081
F34DG207G
R1081
1/16GJ
47KA
SC1091
Z30B0
220G
L1091
F34DG207G
R1091
1/16GJ
47KA
C1041
16KK0.1MN
R1052
1/16GJ
75JA
R1072
1/16GJ
75JA
R1082
1/16
G20A
R1092
1/16
G20A
R4011
1/16GJ
10KA
R4012
1/16GJ
10KA
R4013
1/16GJ
2.2KA
IC4011
QXXAVB593P
R4018
1/16GJ
10KA
C4012
16KK0.1MN
C4013
16KK0.1MN
R4017
1/16GJ
10KA
Q4011
AJ
R4014
1/16GJ
10KA
Q4012
RN1113P
MONIT_OUT
LOWIN
HIGHMONITOR OUT
Q5281
RN1111P
Q5282
RN1110P
Q5283
RN1110P
Q5288
RN1113P
CABLE_SW
R1111
1/16GJ20A
R1112
1/16GJ20A
D1111
02DZ12YG
D1112
02DZ12YG
DDC1_PCB
DDC2_PCB
R5282
1/16GJ
2.2KA
MONIT_OUT
LOWIN
HIGHMONITOR OUT
V_PC2
H2_IN
V2_IN

COMPONENT

K20C
J12B4450N

SC2071
Z30B0220G
L2071
F34DH407G
R2076
1/3GJ75
R2077
1/16GJ47A
Q2076
AH
R2078
1/16GJ1.5KA
R2079
1/16GJ75A
R2080
X
C2072
1/16GJ20A
Y
SC2081
Z30B0220G
L2081
F34DH407G
R2081
1/3GJ75
R2082
1/16GJ47A
Q2081
AH
R2083
1/16GJ1.5KA
R2084
1/16GJ75A
R2085
X
C2082
1/16GJ20A
CB
SC2091
Z30B0220G
L2091
F34DH407G
R2091
1/3GJ75
R2092
1/16GJ47A
Q2091
AH
R2093
1/16GJ1.5KA
R2094
1/16GJ75A
R2096
X
C2092
1/16GJ20A
CR
C2091
100K1MN
D2091
02DZ12YG
R2097
1/16GJ10A
L2092
F34DH107G
Q2092
AJ
R2098
1/16GJ20A
SC2092
Z30B0220G
C2093
100K
0.1MN
COMP_SW

FROM AV

K10A
J10QC305G

VIDEO_EXT
S_CHROMA_EXT
S_Y_EXT
S_SW_EXT
VIDEO_L_EXT
VIDEO_R_EXT
PC_R_EXT
PC_L_EXT
OUT_L
OUT_R
OUT_DET_EXT
SW_F
SW_1
SW_2
SW_3
R2041
1/16GJ10A
R2042
1/16GJ10A
R2043
1/16GJ10A
R2044
1/16GJ10A
VIDEO_L
VIDEO_R
PC_R
PC_L
OUT_L
OUT_R
R2039
1/16GJ10A
R2032
1/16GJ10KA
R2033
1/16GJ15KA
D2071
1SS355
R2072
1/16GJ100KA
R2071
1/16GJ100KA
C2071
100K1MN
C2073
100K1MN
R2074
1/16GJ2ZKA
R2073
1/16GJ1MA
R2000
1/10GZ0C
C2002
16KK0.1MN
Q2001
AH
R2004
1/16GJ470A
R2006
1/16GJ1KA
R2007
1/16GJ100A
TVIDEO
C2003
100K0.47MN
R2008
1/16GJ270A
VIDEO
R2012
1/16GJ470A
Q2011
AH
C2012
16KK0.1MN
R2014
1/16GJ470A
R2016
1/16GJ1KA
R2017
1/16GJ100A
TS_C
C2013
100K0.47MN
R2018
S_CHROMA
R2022
1/16GJ470A
Q2021
AH
C2022
16KK0.1MN
R2024
1/16GJ470A
R2026
1/16GJ1KA
R2027
1/16GJ100A
TS_Y
C2023
100K0.47MN
R2028
1/16GJ270A
S_Y
R2028
S_SW
OUT_DET

D6201
RB5215-30G
D6202
RB5215-30G
L6201
L26B3470G
C6200
6.3MX108A
IC6201
24LC21A/SNP
R6201
1/16GJ47KA
R6202
1/16GJ47KA
C6201
100K
0.1MN
C6202
100K
0.1MN
R6203
1/16GJ10KA
R6204
1/16GJ10KA
IC6202
QXXAVC440P
R6205
1/16GJ10KA
Q6201
AH
R6206
1/16GJ10KA
DDC1_PCA
SDA2_5V
DDC2_PCA
SCL2_5V
V1_IN
DDC_SW1

D6211
RB5215-30G
D6212
RB5215-30G
L6211
L26B3470G
C6210
6.3MX108A
IC6211
24LC21A/SNP
R6211
1/16GJ47KA
R6212
1/16GJ47KA
C6211
100K
0.1MN
C6212
100K
0.1MN
R6213
1/16GJ10KA
R6214
1/16GJ10KA
IC6212
QXXAVC440P
R6215
1/16GJ10KA
Q6211
AH
R6216
1/16GJ10KA
DDC1_PCB
SDA2_5V
DDC2_PCB
SCL2_5V
V_PC2
DDC_SW2

IC5641
BA12FPP
D3611
1SS355
C5641
KK0.1GQ
C5642
16EM
47JT
P_FAIL

IC5201
AN5870SBG
L5202
L26B3470G
C5209
16KK0.1MN
C5208
10EM1003T
C5201
6.3MX2.2MN
C5202
6.3MX2.2MN
C5203
6.3MX2.2MN
C5204
6.3MX2.2MN
C5212
16KK0.1MN
C5213
16KK0.1MN
C5214
16KK0.1MN
C5206
6.3MX2.2MN
C5207
6.3MX2.2MN
C5216
16KK0.1MN
R5201
1/16GJ10A
R5202
1/16GJ10A
R5203
1/16GJ10A
R5204
1/16GJ10A
R5206
1/16GJ10A
R5207
1/16GJ10A
R5208
1/16GJ100A
R5209
1/16GJ100A
R5211
1/16GJ100A
R5212
1/16GJ100A
D5301
RB551
V-30G
D5302
RB551
V-30G
D5303
RB551
V-30G
D5304
RB551
V-30G
R1_IN
G1_IN
B1_IN
G2_IN
B2_IN
H1_IN
H2_IN
V1_IN
V2_IN
C5217
KK0.1GQ
C5218
16EM1001Y
C5219
KK0.1GQ
C5221
KK0.01MN
C5222
16KK0.1MN
C5223
16EM4701X
C5226
16EM4701X
C5227
KK0.01MN
C5231
KK0.01MN
R5221
1/16GJ2KA
R5222
1/8GJ56
R5226
1/16GJ1KA
R5227
1/16GJ20A
R5228
1/8GJ56
R5232
X
R5233
1/16GJ1KA
R5234
1/16GJ20A
R5236
X
R5237
1/16GJ20A
R5238
1/8GJ56
Q5301
AH
R1
G1
GSYNC
B1
PC1/PC2_SW

IC3801
SP232AENP
C3802
6.3MX2.2MN
C3801
6.3MX2.2MN
C3803
6.3MX2.2MN
C3804
6.3MX2.2MN
C3806
10KK1MN
R3801
1/16GJ10A
R3802
1/16GJ10A
RXD1
TXD1

CONTROL
PORT

K40C
J11B7560N
SC3051
Z30B0220G
SC3052
Z30B0220G
L3051
F34DG206G
L3052
F34DG206G

ON BOARD CONTACT

TPG01 J30B2140G
TPG02 J30B2140G
TPG03 J30B2140G
TPG04 J30B2140G
TPG05 J30B2140G
TPG06 J30B2140G
TPG07 J30B2140G

SCREW

<SIDE A>
SCREW1 SCREW_10
SCREW2 SCREW_10
<SIDE B>
SCREW4 SCREW_10
SCREW5 SCREW_10

IC5301
BA7078AFP
L5302
L26B3470G
C5316
6.3VM47DJ
C5308
16KK0.1MN
C5307
6.3MX2.2MN
C5309
KK0.47MN
C5312
100K1MN
C5311
10KK0.47MN
C5313
6.3MX2.2MN
C5314
10KK1MN
C5317
16KK0.1MN
C5318
CJ100CM
R5314
1/16GJ1MA
R5317
1/16GJ20A
R5319
1/16GJ20A
R5318
1/16GJ3.9KA
HSCTL
C/HSYNC IN
VSEPA
VSYNC IN
CVPOL
CVEXI
CPSEL
CPWID
POLH
EXIH
POLV
EXIV
VCC
HDRV
CLAMP
VDRV
GND
G-SYNCIN (VEXCKIN)

IC5302
TC7WH125FUK
R5303
1/16GJ10KA
R5304
1/16GJ
1KA
R5307
1/16GJ1KA
R5308
1/16GJ1KA
R5312
1/16GJ1KA
R5302
1/16GJ
10KA
C5301
160K0.1MN
C5303
10KK1MN
C5306
100K
0.1MN
C5304
10KK1MN
Q5301
AH
Q5302
AJ
Q5303
AJ
Q5304
AH
GSYNC
C5322
X
C5323
X
C5324
X
C5325
X
C5326
X
R5341
10KQ2.2GMB
R5342
1/16GZ0A
R5343
X
R5344
1/16GZ0A
R5346
X
R5347
X
R5348
X
IC5304
X
S-5V
5SV
C5321
X
C5302
X
C5327
X
C5328
X
C5329
X
C5330
X
C5331
X
C5332
X
C5333
X
C5334
X
C5335
X
C5336
X
C5337
X
C5338
X
C5339
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C5340
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C5341
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C5342
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C5343
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C5344
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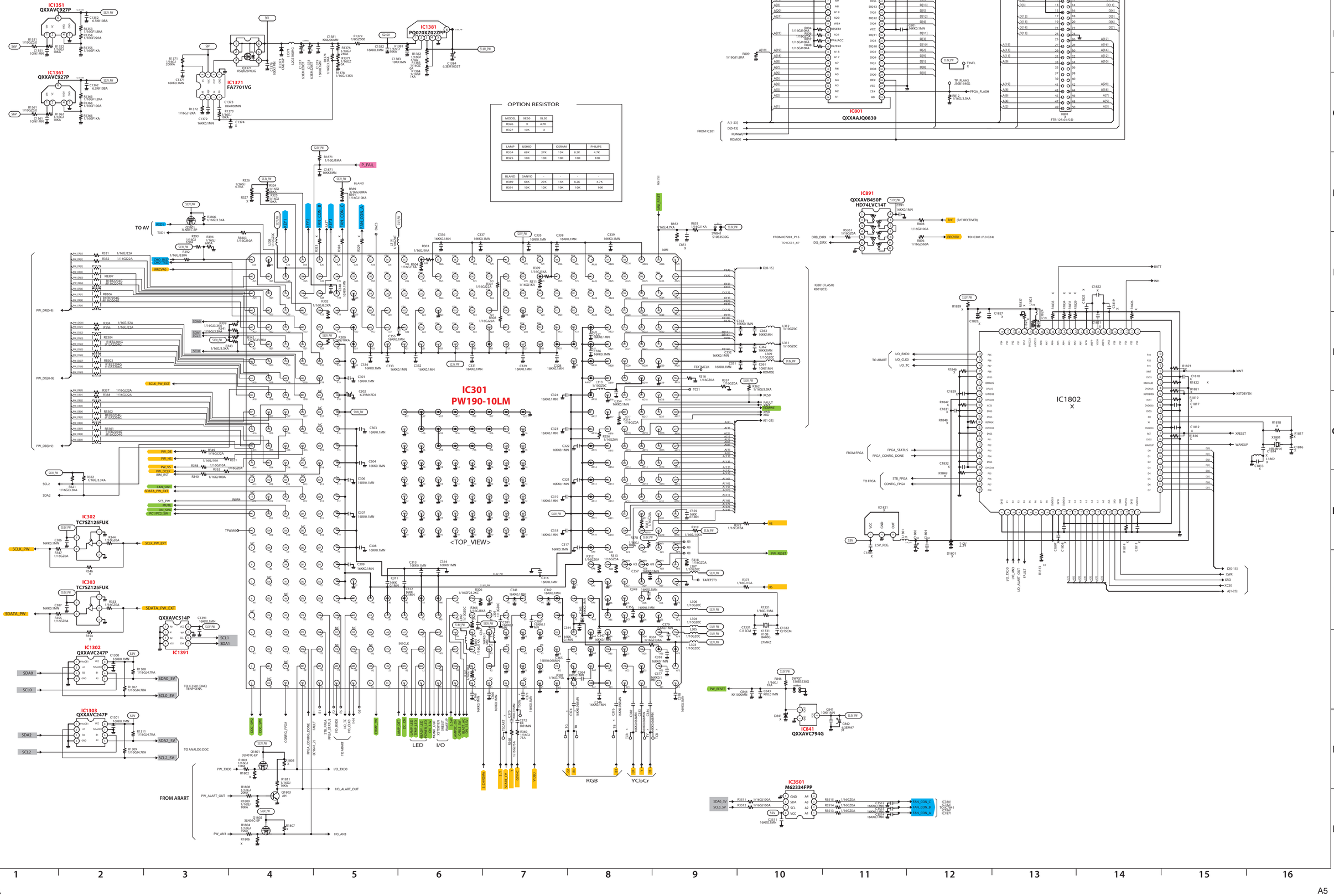
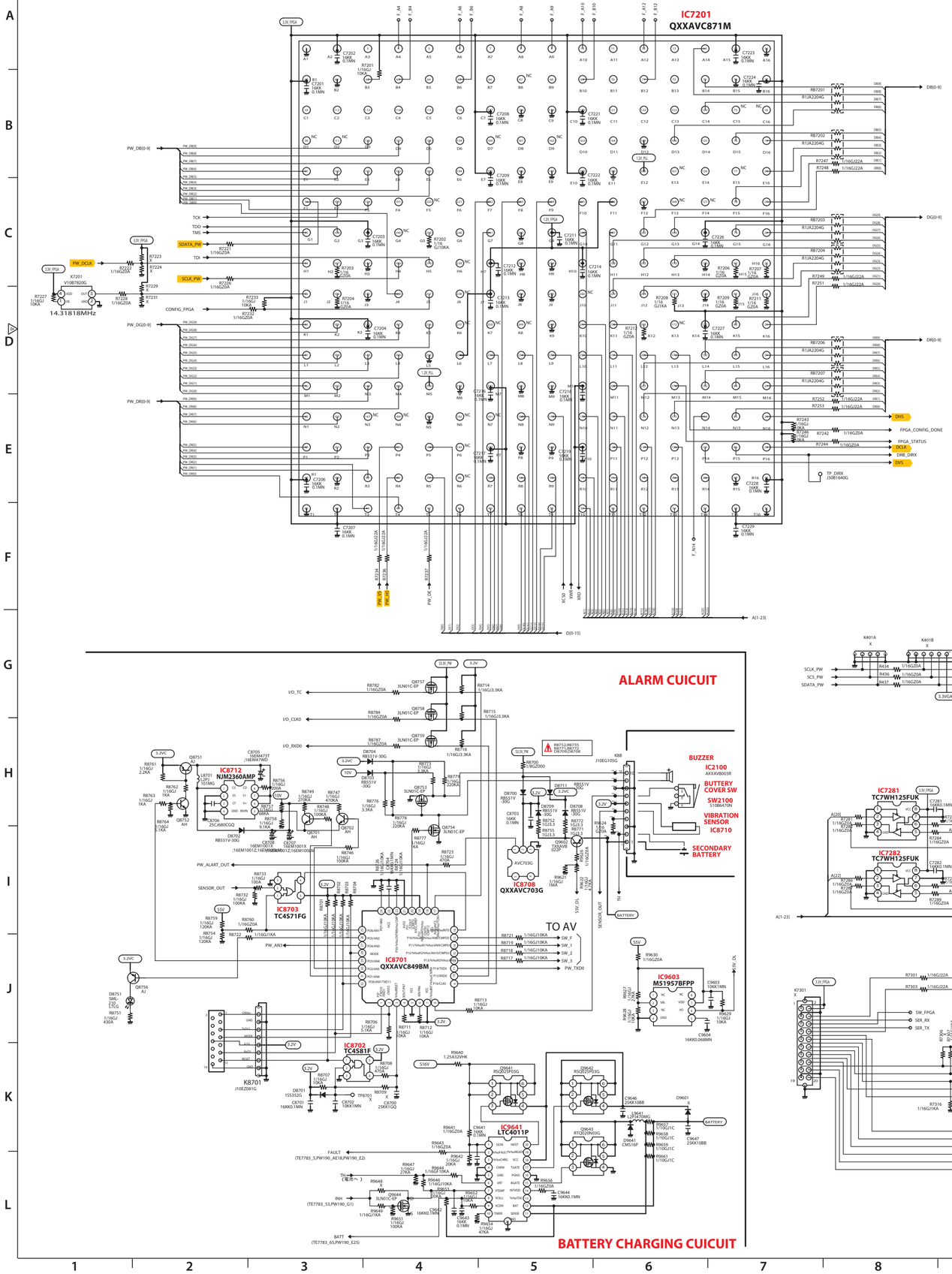
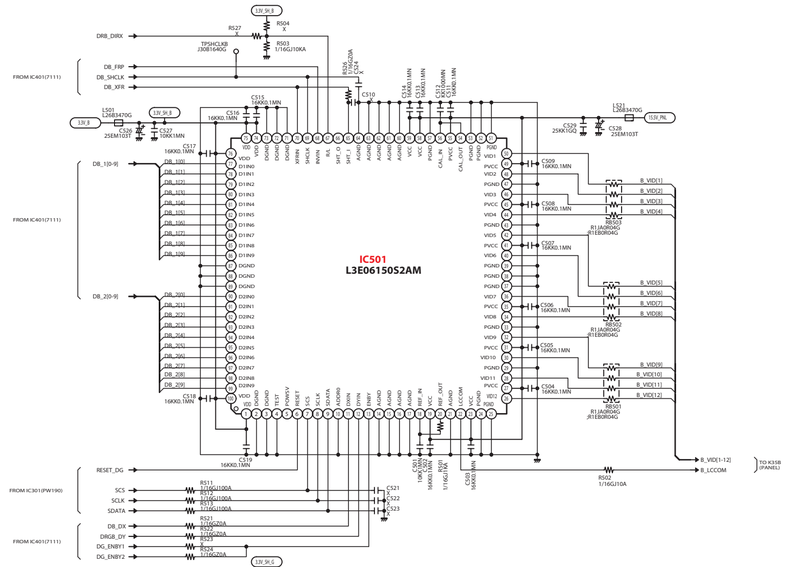
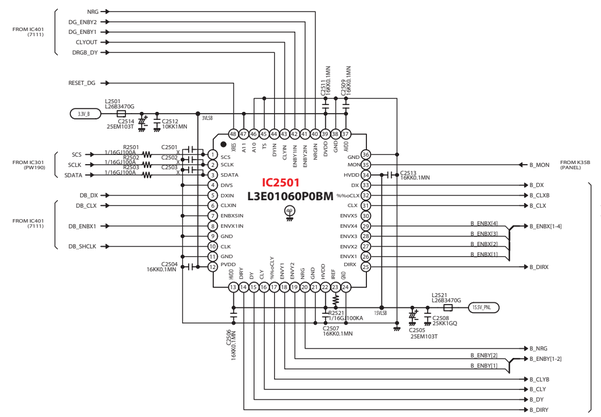
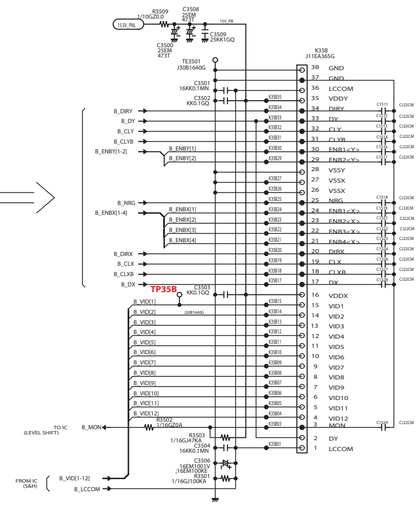
C5345
X
C5346
X


IC1351
QXXAVC927P
IC1361
QXXAVC927P
IC1371
FA7701VG
IC1381
PQ070XZ02ZPF
IC801
QXXAAJQ0830
IC891
QXXAVB450P
HD74LVC14T
IC301
PW190-10LM
<TOP_VIEW>
IC1802
X
IC302
TC7SZ125FUK
IC303
TC7SZ125FUK
IC1302
QXXAVC247P
IC1303
QXXAVC247P
IC1391
QXXAVC514P
IC841
QXXAVC794G
IC3501
M62334FPP
OPTION RESISTOR
MODEL | KE50 | XL50
R326 | X | 4.7K
R327 | 10K | X
LAMP | USHIO | | OSRAM | | PHILIPS
R324 | 68K | 27K | 15K | 8.2K | 4.7K
R325 | 10K | 10K | 10K | 10K | 10K
BLAND | SANYO | - | - | - | -
R389 | 68K | 27K | 15K | 8.2K | 4.7K
R391 | 10K | 10K | 10K | 10K | 10K
TO AV
FROM IC301
TO IC531_67
FROM IC7201_P15
TO IC301 (P.3 C:24)
IC801(FLASH)
KB010CE)
TO ARART
FROM ARART
FROM FPGA
TO FPGA
TO IC3501(DAC)
TEMP. SENS.
TO ANALOG DDC
LED
I/O
RGB
YCbCr
2.5V
XINT
XSTDBYEN
XRESET
WAKEUP
P_FAIL
PW_RESET
SCLK_PW_EXT
SDATA_PW_EXT
FAN_CON_A
FAN_CON_B
FAN_CON_C

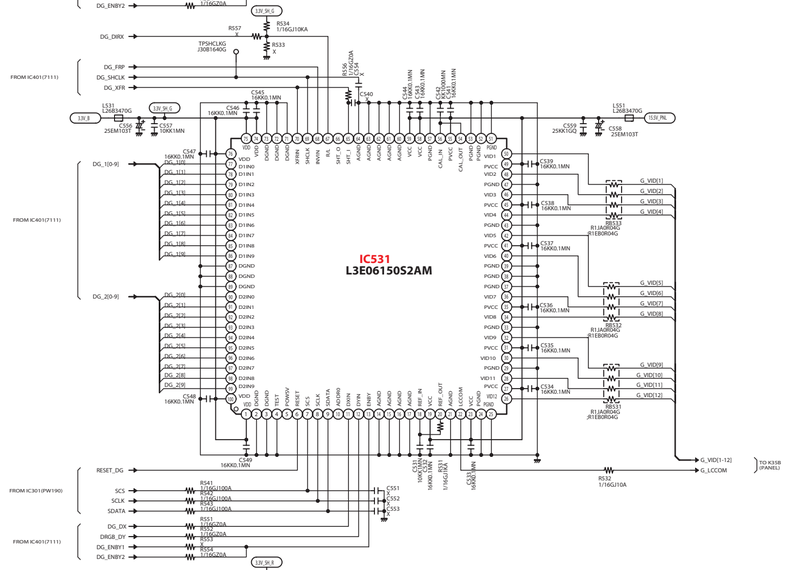

IC7201
QXXAVC871M
IC7261
QXXAVC927P
IC7271
QXXAVC927P
IC1401
PQ070XZ02ZPH
IC1411
QXXAVC923P
IC402
TC7SZ125FUK
IC401
L3E07111K0AM
<TOP_VIEW>
X7201
V10B7820G
14.31811MHz
PW_DCLK
SDATA_PW
SCLK_PW
TDX
CONFIG_FPGA
PW_DB[0-9]
PW_DG[0-9]
PW_DR[0-9]
TCK
TDO
TMS
DB[0-9]
DG[0-9]
DR[0-9]
DH5
FPGA_CONFIG_DONE
FPGA_STATUS
DRB_DRX
DV5
TP_DRX
J30B1640G
A[1-23]
D[0-15]
P_FAIL
RESET_DG
IRM_RST
SDATA
SCLK
SCS
TP_DVS
TP_DHS
TP_DCLK
DR_1[0-9]
DR_2[0-9]
DG_1[0-9]
DG_2[0-9]
DG_ENB2
DG_ENB1
CLYOUT
DRGB_DY
DG_ENBX1
MNG
DG_DX
DG_CLX
DG_FRP
DG_XFR
DG_SHCLK
TO IC531 (5dHz)
TO IC2531 (LEVEL SHIFT)
IC531 (LEVEL SHIFT)
IC2531 (LEVEL SHIFT)
ALARM CUICUIT
IC8712
NJM2360AMP
IC8703
TC4571FG
IC8702
TC4581F
IC8701
QXXAVC849BM
IC8708
QXXAVC703G
IC9603
M51957BFPP
IC9641
LTC4011P
IC2281
TC7WH125FUK
IC2282
TC7WH125FUK
BUZZER
IC2100
AXXAVB003R
BUTTERY COVER SW
SW2100
51086470N
VIBRATION SENSOR
IC8710
SECONDARY BATTERY
TO AV
SW_F
SW_1
SW_2
SW_3
PW_TXD0
I/O_TC
I/O_CLK0
I/O_RXD0
PW_ALART_OUT
SENSOR_OUT
PW_AN3
FAULT
INH
BATT
SCLK_PW
SCS_PW
SDATA_PW
SCLK
SCS
SDATA
K8701
J10E2081G
K8B
J10E6105G
BATTERY CHARGING CUICUIT

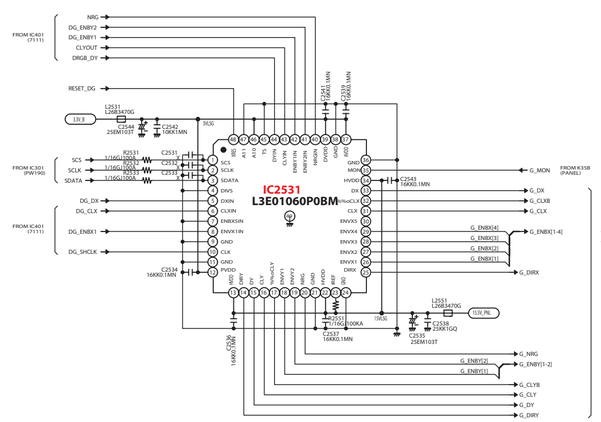


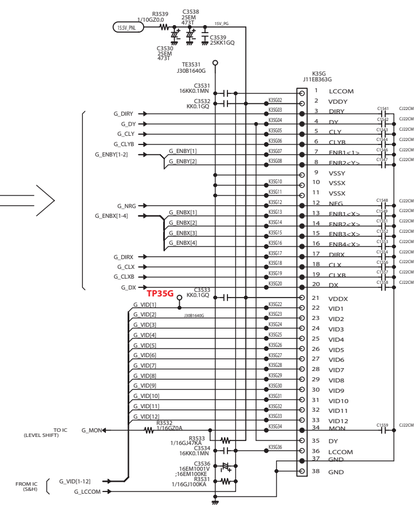




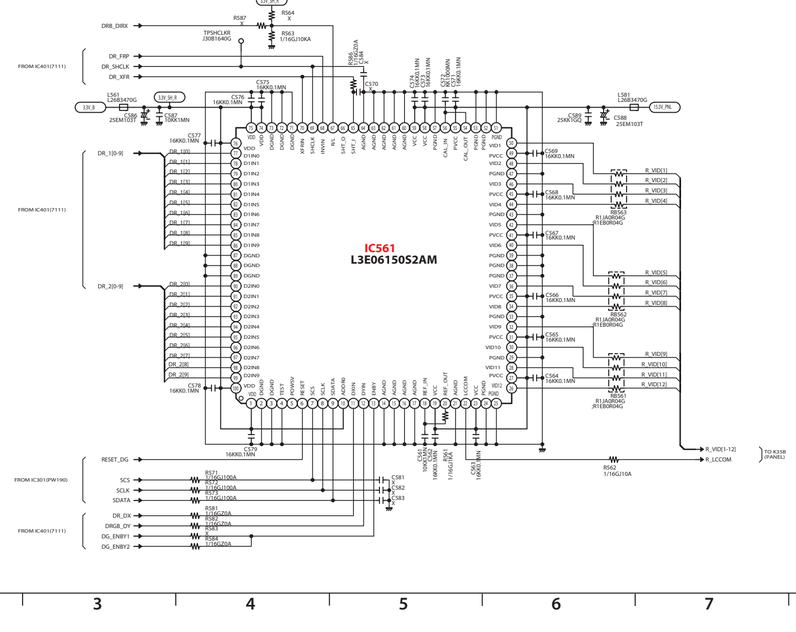
B
LCD PANEL

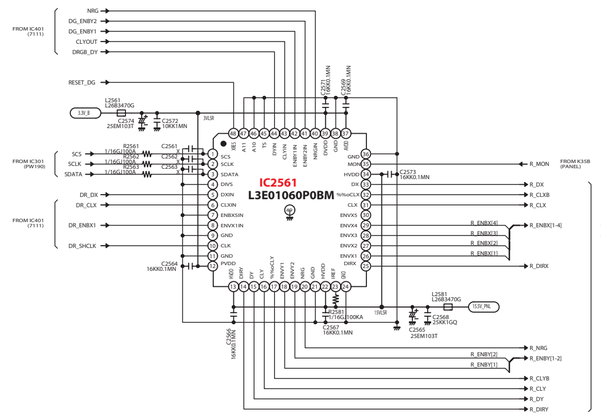


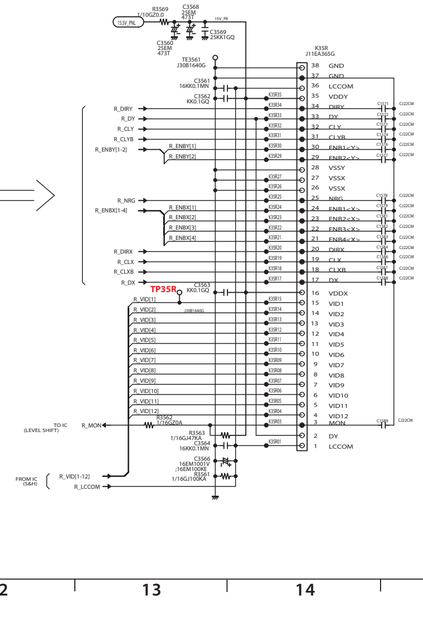




G
LCD PANEL







R
LCD PANEL

LED

D6831 LAMP REPLACE(Y)
D6832 TEMP WARNING(R)
D6833 STAND-BY (RED) ON
LAMP ON (GREEN) ON

D6831 SML-212YTG
D6832 SML-210LTMG
D6833 SML-521MUWG
Q6846 2SA1203Y
Q6847 UMG2N
Q6841 AH
Q6842 AH
Q6843 AH
D6841 02DZ12YG
D6842 02DZ12YG
D6843 02DZ12YG
D6844 02DZ12YG

LAMP_LED
TEMP_LED
READY_LED
POWER_LED
FROM IC301(PW)

KEY SW

K8K
J10ES056G
L6801 L2683470G
L6802 L3CZ220PG
L6803 L3CZ220PG
L6804 L3CZ220PG
C6811 4P2N 1/16GJ100A
C6812 4P2N 1/16GJ100A
C6813 4P2N 1/16GJ100A
C6814 4P2N 1/16GJ100A

KEY1
KEY2
KEY3
TO IC301 (P.3)

R/C

K8D
J10ES046G
C2891 16KK0.1MN
R2890 1/16GJ 22K
L2891 L2683470G
R2891 1/16GJ22A
R2892 1/16GJ100A
L2892 L3CZ220PG
C2892 C470QR
D2891 UDZS6.2BG
D2892 UDZS6.2BG

R/C
(TO IC891)

TEMP. SENSOR

K8T
J10EG045G
L8841 L2683470G
L8842 L3CZ220PG
L8843 L3CZ220PG
C8841
C8842 CJ33CM
C8843 CJ33CM

SDA0_5V
SCL0_5V

LAMP BALAST

K8H
J10EZ051G
L4811 L3CZ220PG
L4812 L2683470G
L4813 L3CZ220PG
L4814 L3CZ220PG
C4811
C4812
C4813
C4814 4P2N 1/16GJ100A
D4811 UDZS6.2BG
D4812 UDZS6.2BG
D4813 UDZS6.2BG
R4801 1/16GJ100A
R4802 X
R4803 1/16GJ20A
R4804 1/16GJ100A
R4831 1/16GJ 100K
R4832 1/16GJ 10K
R4833 1/16GJ 10K
R4834 1/16GJ 2.2KA
Q4801 X
Q4802 X

LAMP_DET
GND
5V
LAMP_SW
ECO

IC9882
TC74ACT14FTP
C9882 160K0.1MN
R9883 1/16GZ0A
R9884 X
R9881 1/16GJ13.3KA
R9882 1/16GZ0A
Q9801 3LN01C-EP

CHO_TXD
CHO_RXD
LAMP_DET
TO IC301

LAMP COVER SW

SW902
S1086510N

K8S
J10EG045G
L4891 L3CZ220PG
L4892 L3CZ220PG
R4862 1/16GJ100A
C4891 160K0.1MN

IC4891
TC7SET00FUP

BLAST_AC
FAN_ERR
TO IC301(P.3)

POWER

K8R
J10XK120G
C5616 25KK4.7BB
C5617 25KK4.7BB
C5618 25KK4.7BB
C5619 10KK1MN
R697 1/8GZ000
R689 1/16GJ 10KA
Q683 2SB1204SP
R691 1/3 1/16GJ 100J
Q681 AH
C5609 250M 47JT
C5613 250M 47JT
C687 6.3EM 220JT
R696 1/16GJ2KA
FB602 L2683470G
C5607 250M 47JT
C5611 250M 47JT
C5612 250M 47JT
C5608 250M 47JT
FB606 L2683470G
L2683470G
FB609 L2683470G
L5601 L2683470G
R5608 10GJ2Z
C5608 10EM1003T
C5601 10EM1003T
C5602 160K0.1MN
SC5608 Z30B0220G

DC_ON
5V
16V
LAMPDC_ON

	PN	OSRAM	USHIO
R4602	X	2.2K	X
R4603	0	X	0
R4834	10K	1K	2.2K
R4862	390	1.2K	100
Q4801	X	AJ	X
R9883	0	X	0
R9884	X	0	X

(FROM AV JACK)

TE5003
J30B1640G

IC5001
NJW1141MP

VIDEO_R
VIDEO_L
PC_L
PC_R

IN1a IN1b
IN2a IN2b
IN3a IN3b
IN4a IN4b
MONa MONb
N.C. N.C.
TONE-Ha TONE-Hb
TONE-La TONE-Lb
LINEa LINEb
OUTa OUTb
CVa AGC
CVb CTH
SDA CTL
SCL Vref
GND V+

C5001 16KK0.1MN
C5002 KK0.01MN
C5003 KK0.01MN
C5004 16KK0.1MN
C5006 160K0.1MN
C5007 KK0.01MN
C5008 KK0.01MN
C5009 160K0.1MN
C5011 KK2200MN
C5012 16KK0.1MN
C5016 KK2200MN
C5017 160K0.1MN
C5013 10K1MN
C5014 10K0.1MN
C5018 160K0.33GQ
C5019 10K1MN
C5021 10K1MN
C5022 10K1MN
C5023 10K1MN
C5024 160K108B
R5001 1/3GJ4.7
R5002 1/16GJ10A
R5003 1/16GJ10A

SDA0_5V
SCL0_5V

(TO AV JACK)

OUT_L
OUT_R
Q5062 AH
Q5064 AH
D5061 1S5355
D5062 1S5355
Q5061 AH
Q5063 AH
C5061 MSM101V
C5069 MSM101V
R5061 1/16GJ1KA
R5062 1/16GJ 1.2KA
R5063 1/16GJ1KA
R5064 1/16GJ1KA
R5066 1/16GJ1.2KA
R5067 1/16GJ1KA
R5068 1/16GJ1.2KA
R5069 1/16GJ1KA
R5071 1/16GJ1.2KA
MUTE
(MUTE: HIGH)

W_AUDIO

Q5031 AH
Q5032 AH
R5031 1/16GJ470A
R5032 1/16GJ470A
R5033 1/16GJ12.5KA
R5034 1/16GJ1KA
R5036 1/16GJ1KA
R5037 1/16GJ1KA
R5038 1/16GZ0A
R5039 1/16GJ4.7KA

IC5041
QXXAVB863P

C5042 16EM2201V
C5043 16EM1MN
C5044 250M 6.8FA
C5045 250M 6.8FA
C5046 250M 6.8FA
C5047 250M 6.8FA
R5044 1/16GJ 560KA
R5045 1/16GJ 4.7KA
R5046 1/16GJ 6.8KA
R5047 1/16GJ 33KA
R5048 1/16GJ 5.1KA
C5041 250M 4.7JA
C5042 250M 4.7JA

SP-
SP+
(TO K8F)

Q5041 AH
Q5042 AH
R5049 1/16GJ 3.3KA
R5050 1/16GJ 10KA
R5051 1/16GJ10KA
R5052 1/16GJ2.7KA
R5053 1/16GJ10KA
C5038 KK0.01MN
C5039 KK0.01MN
MUTE
(MUTE: HIGH)
OUT_DET
(FROM AV)

K8F
J10EP031G

SP+
SP-
N.C.

SPEAKER(2W)

K6R

FAN_A
FAN_B
FAN_C

FAN VOLTAGE ADJUST

TEMP SENSOR 3 (LAMP)

IC8811
QXXAVC869P
C8811 CJ33CM
C8812 CJ33CM
C8813 160K0.1MN
R8811 1/16GJ10A
R8812 1/16GJ10A

TEMP SENSOR 2 (PANEL)

IC8821
QXXAVC869P
C8821 CJ33CM
C8822 CJ33CM
C8823 160K0.1MN
R8821 1/16GJ10A
R8822 1/16GJ10A

SDA0_5V
SCL0_5V

IC5701
PQ20WZ11P

C5701 KK0.1GQ
C5702 250M 4.7JT
R5701 1/16GF 6.2KA
R5702 1/16GF 1.5KA
R5703 1/16GF2KA
R5704 1/16GJ10KA
R5705 1/16GJ1MA
Q5701 RN1117P
Q5702 RN1117P

P_FAIL
TUSV_PK
ON_15.5V

IC5621
QXXAVC927P

C5621 10K1T16N
C5622 160K 10BA
C5623 160K 0.1MN
R5621 1/16GJ3.3KA
R5622 1/16GJ3.3KA
R5623 1/16GF240A
R5624 1/16GF1KA

D3601 1S5355
P_FAIL

L3581 1.2PH 3D1AD
Q3582 2SA1203Y
R3581 1/16GJ1.5KA
R3582 1/16GJ4.7KA
R3583 1/16GJ4.7KA
R3584 1/16GJ1.5KA
Q3581 AH
C3581 6.3EM1003T

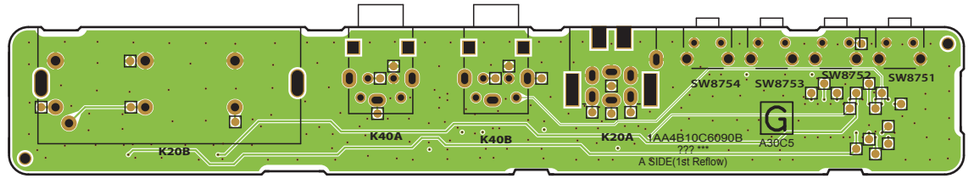
ON_5VA

IC7801
PQ20WZ11P

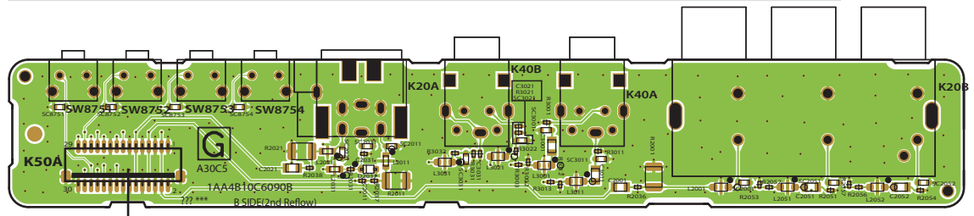
FAN_SW1
FAN_CON_A
Q7892 RN1117P
Q7891 RN1117P
R7891 1/16GJ10KA
R7892 1/16GJ476A
R7811 1/16GJ 7.5KA
R7812 1/16GJ 16KA
R7880 1/16GJ1KA
R7801 1/16GZ0A
R7802 1/16GJ 1KA
R7803 1/16GJ 1KA
R7804 1/16GJ 2.4KA
R7805 1/16GJ 2.4KA
R7806 1/16GJ 2.4KA
R7807 1/16GJ 2.4KA
R7808 1/16GF 2.2KA
C7801 250M 4.7JA
C7802 160K 0.1MN
C7803 160K 0.1MN
C7804 160M 100TV
C7805 160K 0.1MN
C7806 160K 0.1MN
C7807 160K 0.1MN
C7808 1/16GF 4.8KA
D3611 1S5355
D3612 1S5355
R5641 1/16GJ 1MA
R5642 1/16GJ276A
R5643 1/16GJ 100KA
R5644 16KK0.1MN
R5645 1/16GJ 100KA
R5646 1/16GJ 100KA
R5647 1/16GJ 100KA
R5648 1/16GJ 100KA
R5649 1/16GJ 100KA
R5650 1/16GJ 100KA
R5651 1/16GJ 30KK
R5652 1/16GJ 100KA
R5653 1/16GJ 100KA
R5654 1/2681190G
C5641 16KK0.1MN
C5642 250M 4.7JA
C5643 250M 4.7JA
C5644 16KK0.1MN
C5645 250M 4.7JA
C5646 4X4700MN
C5647 X
C5651 160M 100TV
C5652 160M 100TV
C5653 X
C5654 160M 100TV
C5655 160M 100TV
C5656 160M 100TV
C5657 160M 100TV
C5658 160M 100TV
C5659 160M 100TV
C5660 160M 100TV
C5661 160M 100TV
C5662 160M 100TV
C5663 160M 100TV
C5664 160M 100TV
C5665 160M 100TV
C5666 160M 100TV

■ Printed Wiring Board Diagrams

AV (SIDE : A)

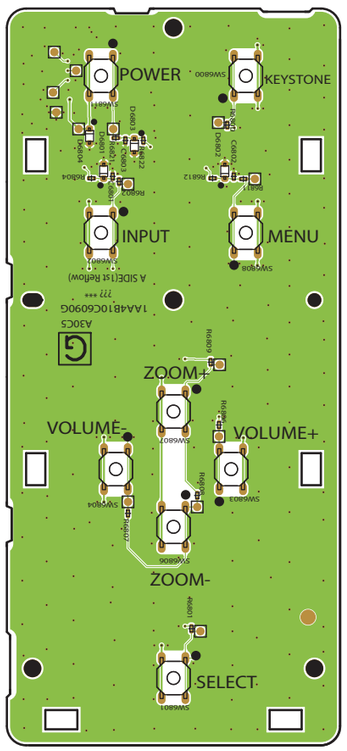


AV (SIDE : B)

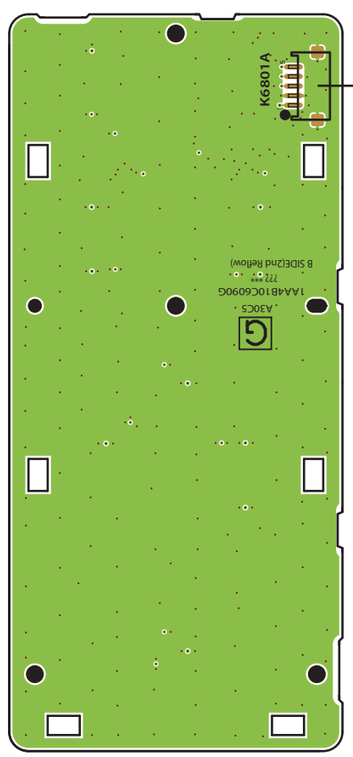


MAIN
"K10A"

KEY SW (SIDE : A)



KEY SW (SIDE : B)



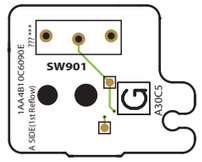
MAIN
"K8K"

⚠ CAUTION

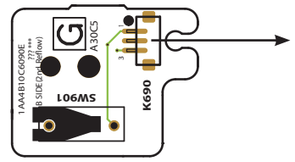
This projector is isolated from AC line by using the internal converter transformer.
Please pay attention to the following notes in servicing

1. Do not touch the part on hot side (primary circuit) or both parts on hot and cold sides (secondary circuit) at the same time.
2. Do not shorten the circuit between hot and cold sides.
3. The grounding lead must be connected to the ground of the same circuit when measuring of voltages and waveforms.

LAMP COVER SW (SIDE : A)



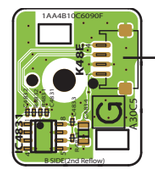
LAMP COVER SW (SIDE : B)



MAIN
"K8S"

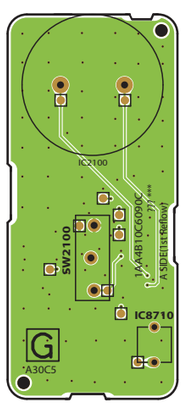
TEMP (SIDE : A)

TEMP (SIDE : B)

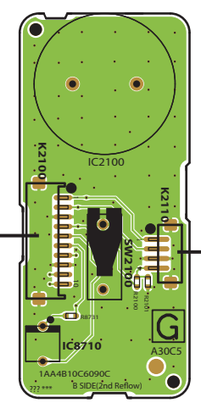


MAIN
"K8S"

BUZZER (SIDE : A)



BUZZER (SIDE : B)



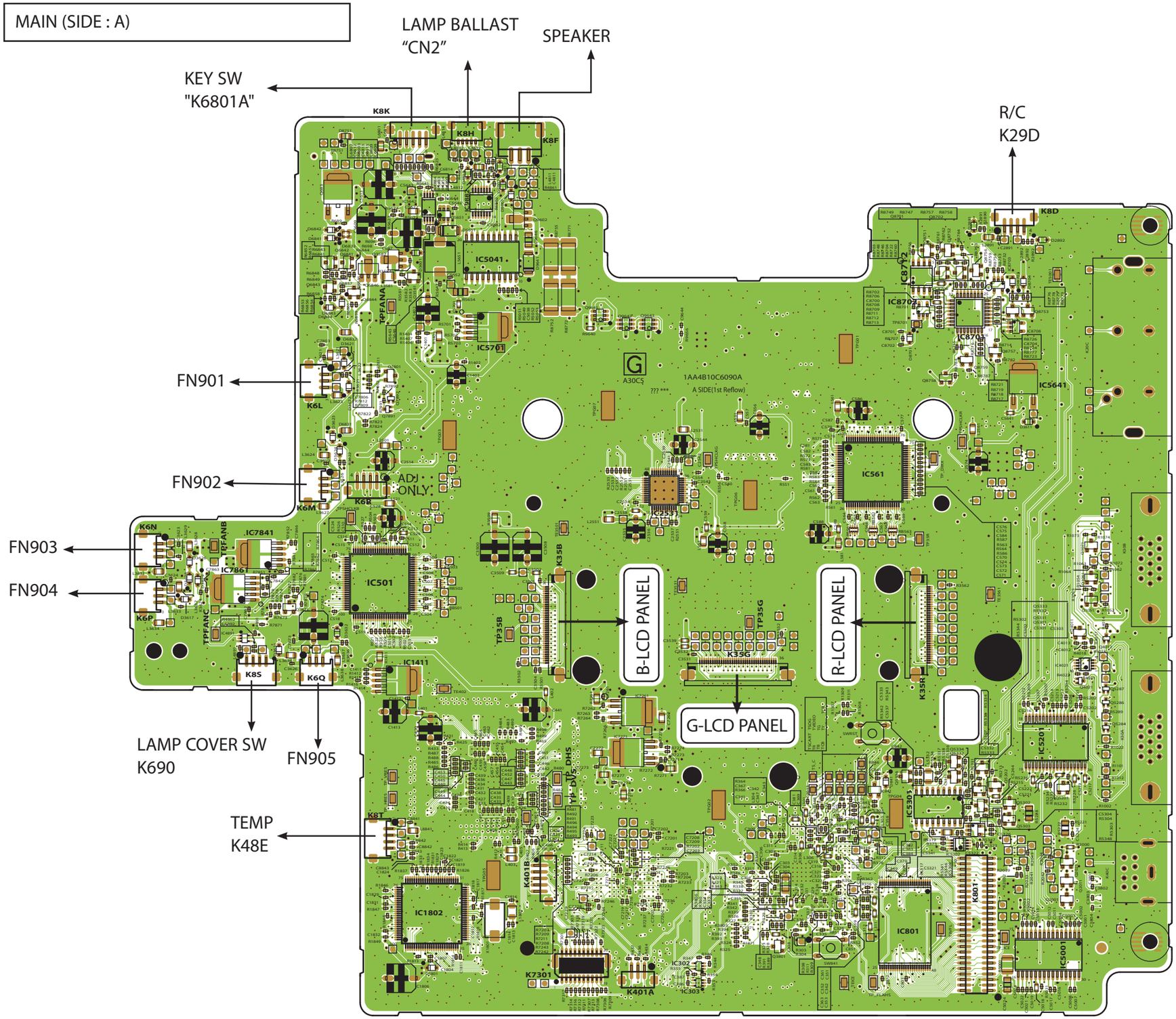
SECONDARY
BATTERY

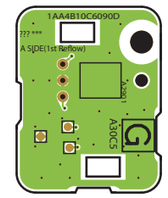
MAIN
"K8B"

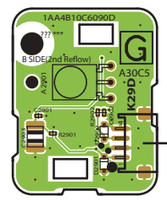
MAIN (SIDE : A)

R/C (SIDE : A)

R/C (SIDE : B)

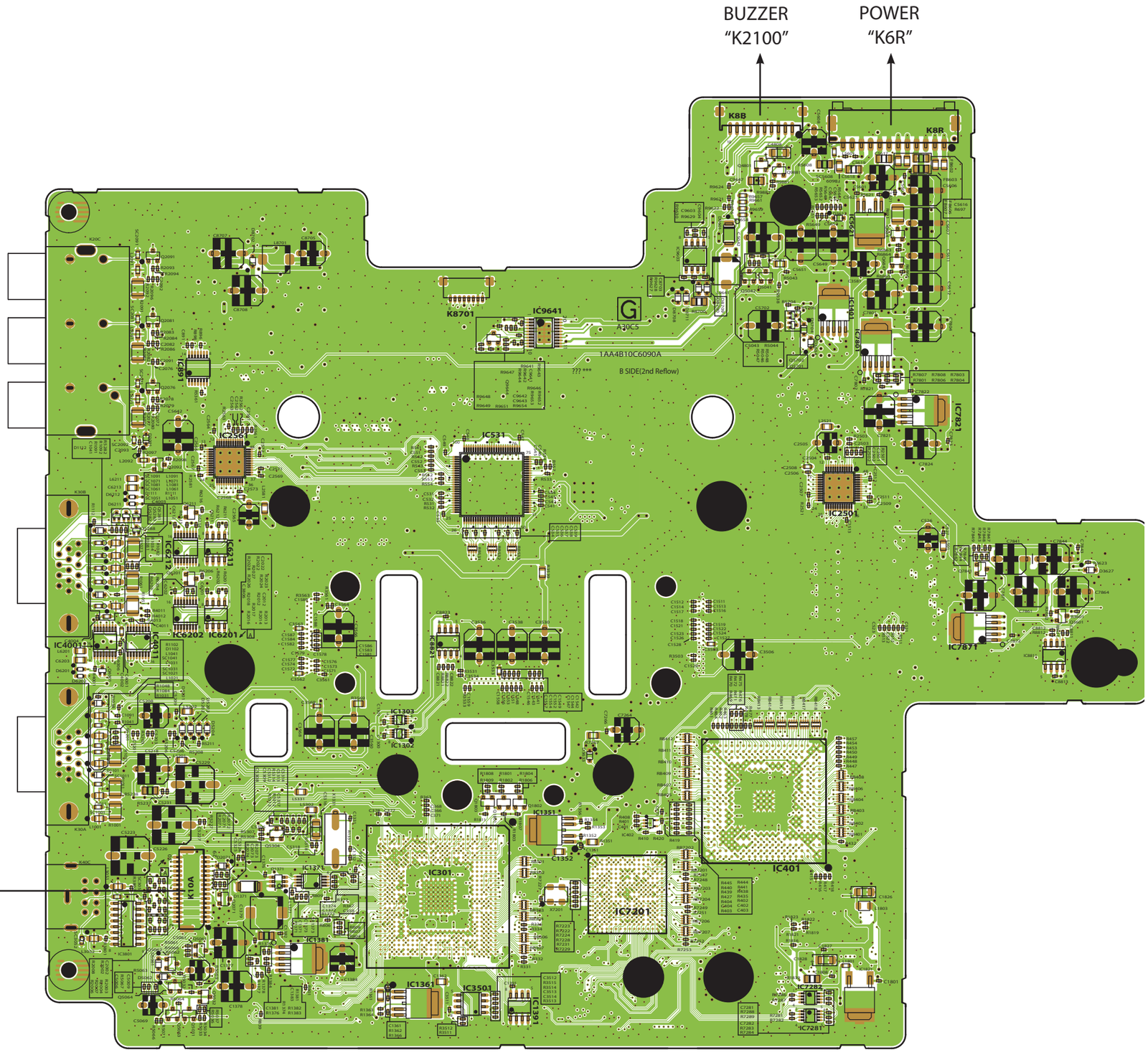




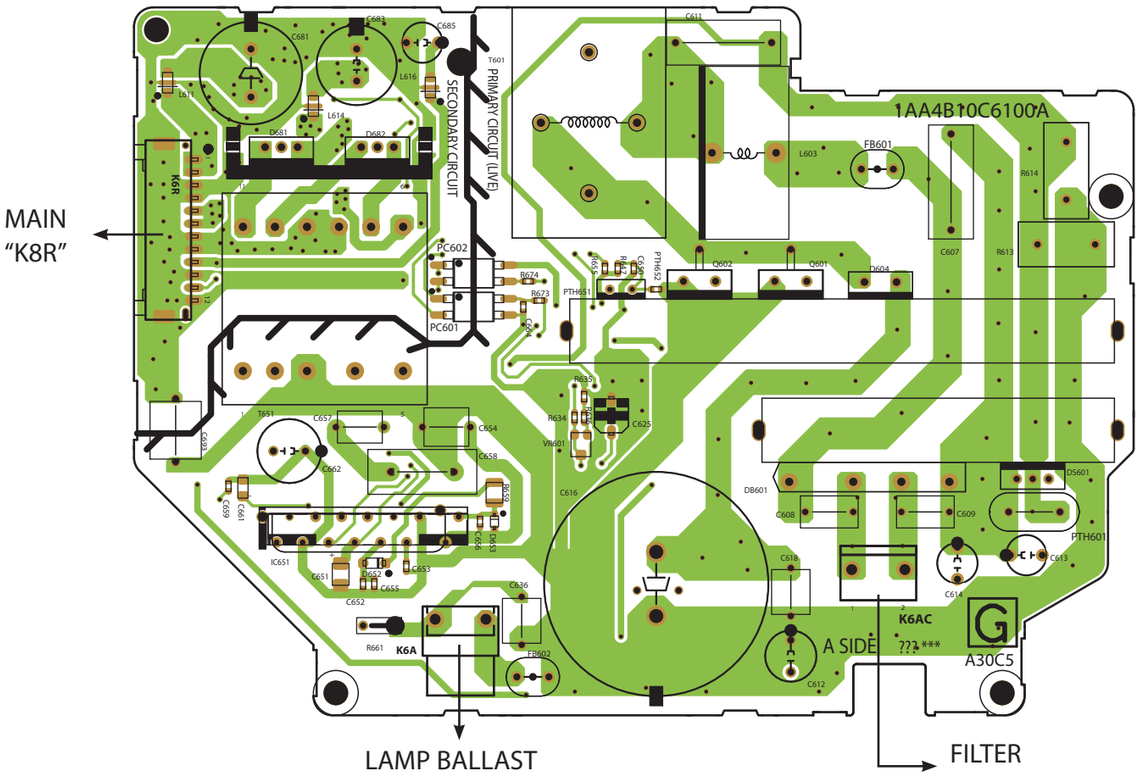


MAIN
"K8D"

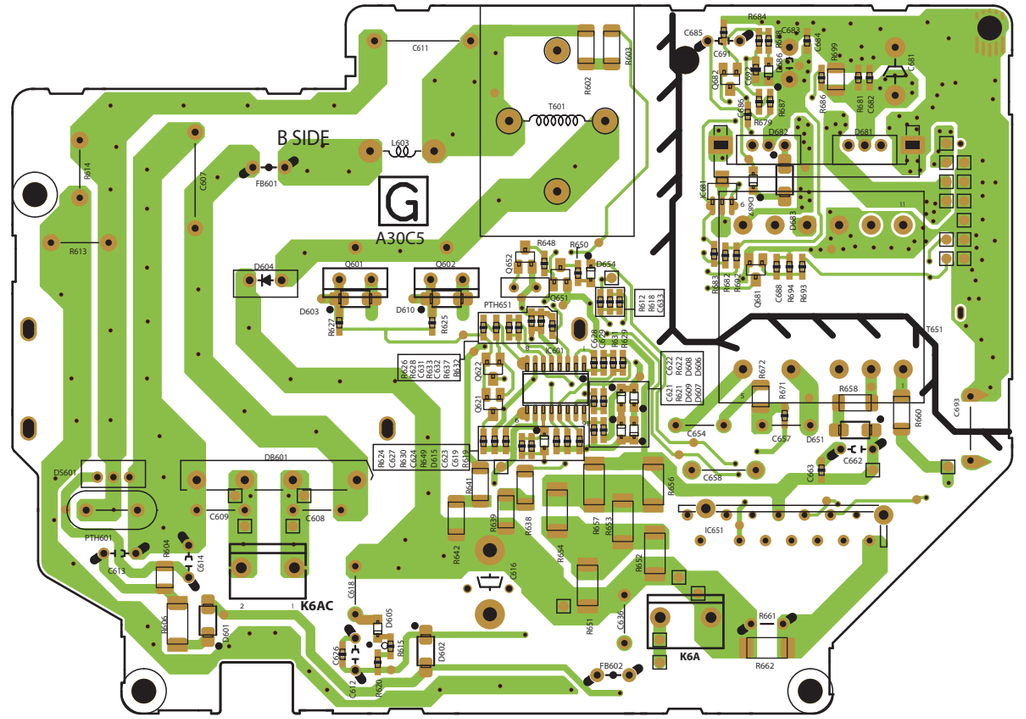
MAIN (SIDE : B)


BUZZER
"K2100"
POWER
"K6R"
AV
"K50A"
K8B
K8R
K8701
IC9641
A30C5
1AA4B10C6090A
??? ***
B SIDE(2nd Reflow)
IC531
IC256
IC6211
IC6212
IC6202
IC6201
IC4001
IC1303
IC1302
IC1351
IC1352
IC301
IC401
IC7401
IC1381
IC1361
IC3501
IC1391
IC7281
IC7871
IC7821
IC2501

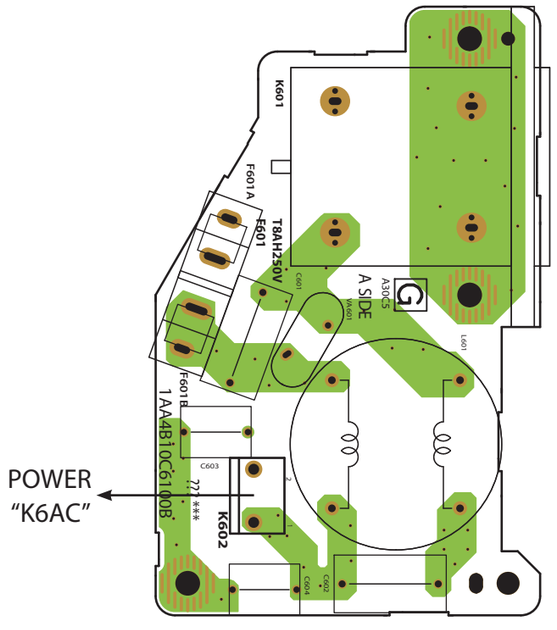
POWER (SIDE : A)



POWER (SIDE : B)

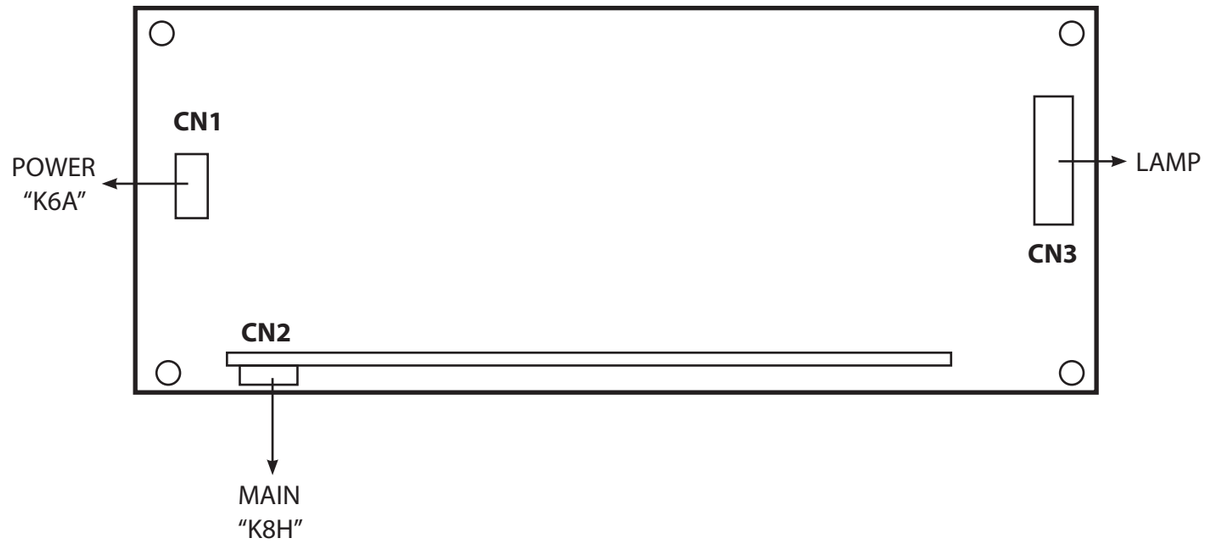


FILTER (SIDE : A)



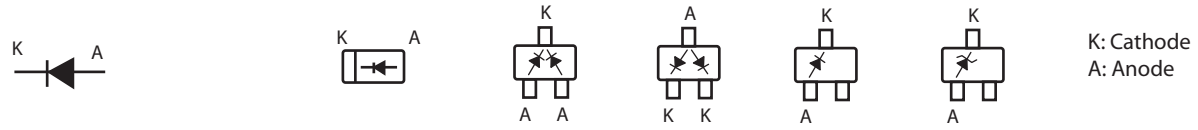
FILTER (SIDE : B)

LAMP BALLAST (SIDE : A)



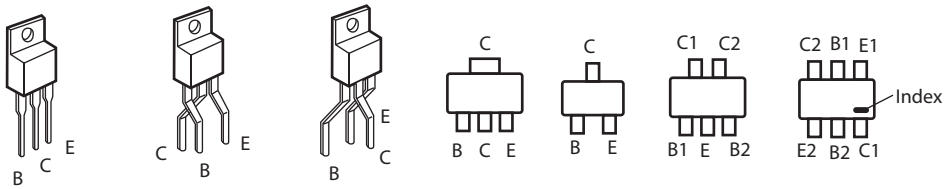
Pin description of diode, transistor and IC

● Diode



K: Cathode
A: Anode

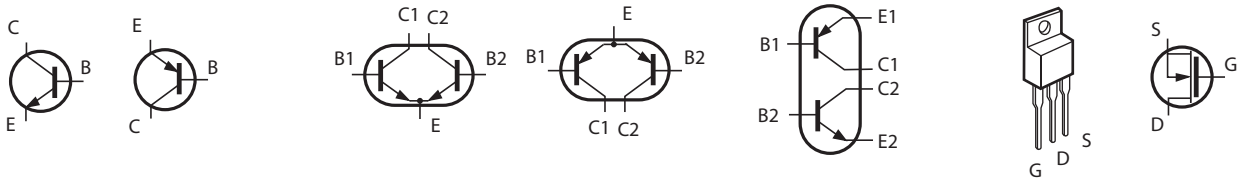
● Transistor/FET



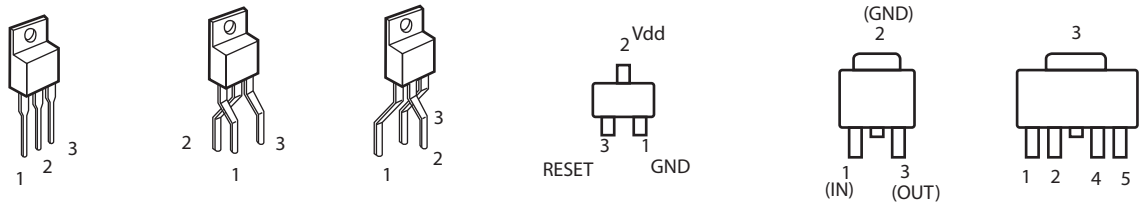
C: Collector
B: Base
E: Emitter

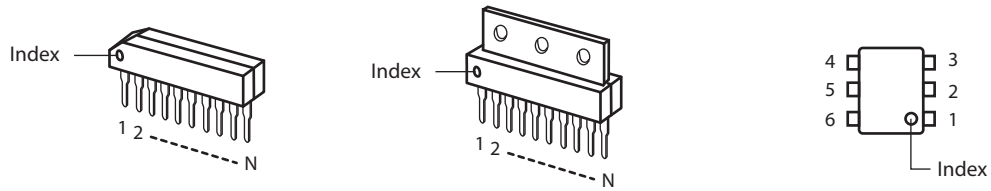
D: Drain
G: Gate
S: Source

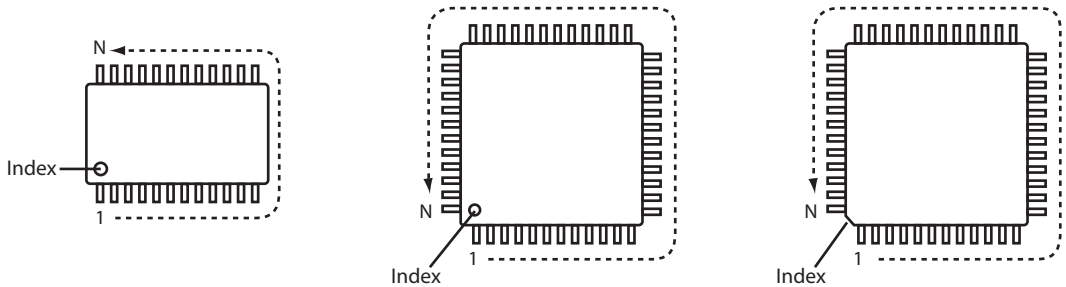
FET

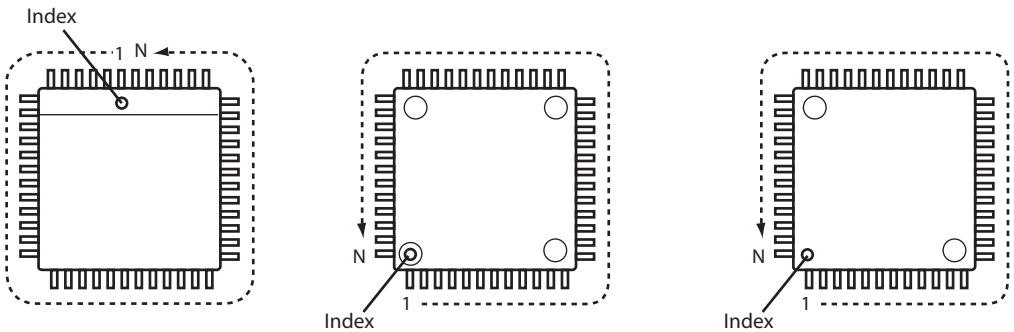


● IC









Note on Soldering

Do not use solder containing lead.

This product has been manufactured using lead-free solder in order to help preserve the environment.

Because of this, be sure to use lead-free solder when carrying out repair work, and never use solder containing lead.

Lead-free solder has a melting point that is 30–40 °C (86–104 °F) higher than solder containing lead, and moreover it does not contain lead which attaches easily to other metals. As a result, it does not melt as easily as solder containing lead, and soldering will be more difficult even if the temperature of the soldering iron is increased.

The extra difficulty in soldering means that soldering time will increase and damage to the components or the circuit board may easily occur.

Because of this, you should use a soldering iron and solder that satisfy the following conditions when carrying out repair work. Also, soldering work must be done in a short time.

Soldering iron

Use a soldering iron which is 70 W or equivalent, and which lets you adjust the tip temperature up to 450 °C (842 °F) It should also have as good temperature recovery characteristics as possible.

Solder

Use solder with the metal content and composition ratio by weight given in the table below. Do not use solders which do not meet these conditions.

Metal content	Tin (Sn)	Silver (Ag)	Copper (Cu)
Composition ratio by weight	96.5 %	3.0 %	0.5 %

Note:

If replacing existing solder containing lead with lead-free solder in the soldered parts of products that have been manufactured up until now, remove all of the existing solder at those parts before applying the lead-free solder.